

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

SEVEN NETWORKS, LLC

v.

GOOGLE LLC

§
§
§ CASE NO. 2:17-CV-442-JRG
§ (Lead Case)

SEVEN NETWORKS, LLC

v.

SAMSUNG ELECTRONICS AMERICA,
INC. and SAMSUNG ELECTRONICS CO.,
LTD.

§
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§ CASE NO. 2:17-CV-441-JRG
§ (Consolidated Case)
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**CLAIM CONSTRUCTION
MEMORANDUM AND ORDER**

Before the Court is the Opening Claim Construction Brief (*Google/Samsung*,¹ Dkt. No. 191) filed by Plaintiff SEVEN Networks, LLC (“Plaintiff” or “SEVEN”). Also before the Court are the Amended Responsive Claim Construction Brief filed by Defendant Google LLC

¹ The present Claim Construction Memorandum and Order refers to the Eastern District of Texas proceedings (Civil Action Nos. 2:17-CV-442 (Lead), -441 (Consolidated)) as “*Google/Samsung*” and refers to related Northern District of Texas proceedings (Civil Action No. 3:17-CV-1495) as “*ZTE*.” *ZTE* is discussed further herein.

(“Google”) (*Google/Samsung*, Dkt. No. 263)² and Plaintiffs’ reply (*Google/Samsung*, Dkt. No. 279).³

Further before the Court are Plaintiff’s Opening Claim Construction Brief (*ZTE*, Dkt. No. 77), Defendant ZTE (USA), Inc.’s (“ZTE’s”)⁴ Corrected Opening Claim Construction Brief (*ZTE*, Dkt. No. 85, Ex. A), Plaintiff’s Responsive Claim Construction Brief (*ZTE*, Dkt. No. 88), ZTE’s Responsive Claim Construction Brief (*ZTE*, Dkt. No. 86), and Plaintiff’s Reply Claim Construction Brief Regarding “Common Channel” and “Non-Common Channel” (*ZTE*, Dkt. No. 148).

The Northern District of Texas and the Eastern District of Texas held a concurrent claim construction hearing in the *Google/Samsung* and *ZTE* proceedings on September 12, 2018. (See Mar. 22, 2018 Order on Concurrent *Markman* Hearing (*ZTE*, Dkt. No. 101; *Google/Samsung*, Dkt. No. 138).)

² Google filed an Amended Responsive Claim Construction Brief pursuant to the Court’s July 19, 2018 Memorandum Opinion and Order (*Google/Samsung*, Dkt. No. 234) and Google’s subsequent July 22, 2018 Notice of Election Regarding Claim Construction Disputes (*Google/Samsung*, Dkt. No. 239). Defendants Samsung Electronics America, Inc. and Samsung Electronics Co., Ltd (collectively, “Samsung”) have stated that this Amended Responsive Claim Construction Brief includes all arguments relevant to Samsung. (See *Google/Samsung*, Dkt. No. 268.) The Court therefore treats the Amended Responsive Claim Construction Brief (*Google/Samsung*, Dkt. No. 263) as having superseded the original Responsive Claim Construction Brief (*Google/Samsung*, Dkt. No. 208) as to both Google and Samsung.

³ Plaintiff’s Reply to [Defendants’] Amended Responsive Claim Construction Brief (*Google/Samsung*, Dkt. No. 279) supersedes Plaintiff’s Reply Claim-Construction Brief (*Google/Samsung*, Dkt. No. 225).

⁴ The Court herein uses the term “Defendants” to refer to some or all of Google, Samsung, and ZTE.

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I. BACKGROUND

Plaintiff has alleged infringement of United States Patents No. 9,516,127 (“the ’127 Patent”), 9,247,019 (“the ’019 Patent”), 9,516,129 (“the ’129 Patent”), 9,351,254 (“the ’254 Patent”), 9,325,600 (“the ’600 Patent”), 9,553,816 (“the ’816 Patent”), 8,811,952 (“the ’952 Patent”), 9,386,433 (“the ’433 Patent”), 8,078,158 (“the ’158 Patent”), and 9,444,812 (“the ’812 Patent”)⁵ (collectively, “the patents-in-suit”). (*See Google/Samsung*, Dkt. No. 1, Exs. 1–6.)

The ’127 Patent, the ’019 Patent, the ’129 Patent, the ’254 Patent, the ’600 Patent, the ’816 Patent, and the ’952 Patent are asserted against Google, Samsung, and ZTE. Many of the claim construction disputes presented in *ZTE* have been incorporated by reference in *Google/Samsung*.⁶

Although the parties’ briefing in *Google/Samsung* includes arguments regarding disputed terms in the ’158 Patent, the ’433 Patent, and the ’812 Patent, the present Claim Construction Memorandum and Opinion does not address those terms because Plaintiff has withdrawn all asserted claims of those patents. (*See Google/Samsung*, Dkt. Nos. 259 & 305.)

⁵ The patents-in-suit are listed here in the order set forth in Plaintiff’s Opening Claim Construction Brief (and in the order attached thereto in Exhibits B–K) in *Google/Samsung*. (*Google/Samsung*, Dkt. No. 191, at 1 n.1.)

⁶ Google and Samsung have asserted: “For these terms, SEVEN incorporates by reference the briefing in SEVEN’s case against ZTE. SEVEN is taking a shortcut to save on page limits, when Defendants in this case never had the opportunity to respond to those arguments in the ZTE Case and therefore lack the same shortcut.” (*Google/Samsung*, Dkt. No. 263, at 4 n.6.) The Court already addressed this issue in its May 23, 2018 Order on Conduct of Claim Construction. (*Google/Samsung*, Dkt. No. 175, at 1–2 (“the Court expects that the Defendants in this case will, through their own claim construction briefing, in accordance with the requirements of P.R. 4–5, identify those positions with which they agree with ZTE, those positions they disagree with ZTE (and why), and address any additional disputed claims present in the patents at issue only in this case”.) The Court further addressed related issues in a Memorandum Opinion and Order entered on July 19, 2018. (*Google/Samsung*, Dkt. No. 234.)

II. LEGAL PRINCIPLES

Claim construction is clearly an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970–71 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

It is understood that “[a] claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999).

“In some cases, however, the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015) (citation omitted). “In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the ‘evidentiary underpinnings’ of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.” *Id.* (citing 517 U.S. 370).

To ascertain the meaning of claims, courts look to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. The specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. *Id.* A patent’s claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* “One purpose for examining the specification is to determine if the patentee has limited the scope of the claims.” *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee’s invention. Otherwise, there would be no need for claims. *SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). Although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

This Court’s claim construction analysis is substantially guided by the Federal Circuit’s decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that “the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Id.* at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention and that patents are addressed to, and intended to be read by, others skilled in the particular art. *Id.*

Despite the importance of claim terms, *Phillips* made clear that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in

which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of “a fully integrated written instrument.” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314–17. As the Supreme Court stated long ago, “in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.

Phillips, 415 F.3d at 1316. Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. Like the specification, the prosecution history helps to demonstrate how the inventor and the United States Patent and Trademark Office (“PTO”) understood the patent. *Id.* at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Id.*; *see Microsoft Corp. v. Multi-Tech Sys.*,

Inc., 357 F.3d 1340, 1350 (Fed. Cir. 2004) (noting that “a patentee’s statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation”).

Phillips rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Phillips*, 415 F.3d at 1319–24. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.*

Phillips does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323–25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

The Supreme Court of the United States has “read [35 U.S.C.] § 112, ¶ 2 to require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). “A determination of claim indefiniteness is a

legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), *abrogated on other grounds by Nautilus*, 134 S. Ct. 2120.

III. AGREED TERMS

In their May 15, 2018 Joint Claim Construction and Prehearing Statement (*Google/Samsung*, Dkt. No. 172, at 1–2),⁷ the parties set forth agreements as to the following terms in the patents-in-suit:

<u>Term</u>	<u>Agreement</u>
“on a periodic basis” (’952 Patent, Claim 26)	“at recurring approximately regular intervals”
“suppressing the aligned content requests” (’019 Patent, Claim 1)	“preventing content requests that have been aligned from being sent”
“offloading application traffic of an application onto a second channel” (’600 Patent, Claim 7)	“diverting application traffic of an application onto a second channel”
“alarms” (’127 Patent, Claims 11, 18)	“time-based triggers used by applications to schedule tasks”
“the digital content” (’433 Patent, Claims 1–9, 16, 19–22, 25, 27, 29–30)	“the digital content” refers to the “available digital content”

⁷ The parties in *ZTE* presented no other agreed-upon constructions. (See *ZTE*, Dkt. No. 61, at 1 (“The parties do not agree on any constructions.”).)

IV. DISPUTED TERMS IN UNITED STATES PATENT NO. 9,516,127

The '127 Patent, titled "Intelligent Alarm Manipulator and Resource Tracker," issued on December 6, 2016, and bears an earliest priority date of March 25, 2013. Plaintiff submits that "[t]he '127 Patent claims systems and methods that conserve network and mobile-device resources." (*Google/Samsung*, Dkt. No. 191, at 1.) The Abstract of the '127 Patent states:

Systems and methods for tracking resources used by triggers such as alarms and timers that are used by mobile applications to schedule tasks and intelligently manipulating the timing of the triggers to optimize usage of resources such as, but not limited to: network, battery, CPU and/or memory are disclosed. In one embodiment, an intelligent alarm manipulator and resource tracker tracks triggers from multiple applications on a mobile device and corresponding use of resources resulting from the triggers on a mobile device. The intelligent alarm manipulator and resource tracker further determines correlations between the triggers and the corresponding use of the resources on the mobile device and manipulates, based on the correlations, timing or frequency of some or all of the triggers to optimize the use of the resources on the mobile device.

A. "backlight" and "backlight status"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
"[the status of] an illumination device positioned behind a viewing surface" ⁸	"[the status of] an illumination device that provides light behind a non-emissive display" ⁹

(*Google/Samsung*, Dkt. No. 191, at 2; *Google/Samsung*, Dkt. No. 246, Ex. A, at 12 & 13; *Google/Samsung*, Dkt. No. 263, at 1.) The parties submit that these terms appear in Claims 10 and 17. (*Google/Samsung*, Dkt. No. 172, at 6–7; *Google/Samsung*, Dkt. No. 246, Ex. A, at 12 & 13.)

⁸ Plaintiff previously proposed: "The term 'backlight,' when considered in light of the broader phrase 'exiting the power save mode when the backlight of the mobile device turns off' is used consistent with its plain and ordinary meaning (i.e., 'exit[ing] the power save mode when the screen of the mobile device turns on')."
(*Google/Samsung*, Dkt. No. 172, at 6–7.)

⁹ Defendants previously proposed: "the status of an illumination device positioned behind a non-emissive display."
(*Google/Samsung*, Dkt. No. 172, at 6–7.)

(1) The Parties' Positions

Plaintiff argues that “[t]he ’127 Patent (like the other patents-in-suit) never refers to displays as being ‘emissive’ or ‘non-emissive’ displays, and it certainly never teaches that the inventions are limited to devices with non-emissive displays.” (*Google/Samsung*, Dkt. No. 191, at 2.) Plaintiff also submits an extrinsic technical dictionary definition. (*Id.*, at 3.)

Defendants argue that “SEVEN’s construction attempts to sweep in display types that do not require or use a ‘backlight,’ and would be inconsistent with the ordinary meaning of the term.” (*See Google/Samsung*, Dkt. No. 263, at 1 (citation omitted).) Defendants submit that “[t]he patent uses both ‘backlight’ and generic terms such as ‘screen’ or ‘display,’ confirming a distinction between a generic screen or display and one that uses a backlight.” (*Id.* (citations omitted).)

Plaintiff replies that “[t]he particular technology used for the screen . . . is not critical to the invention.” (*Google/Samsung*, Dkt. No. 279, at 1.) Plaintiff argues that “[t]he backlight limitation is satisfied by any screen technology where the viewing surface is illuminated from behind.” (*Id.*) Further, Plaintiff submits that “Defendants want the backlight to be behind an undefined ‘display[,]’ adding another limitation to the claim that is unsupported by the specification and that creates confusion.” (*Id.*)

(2) Analysis

On one hand, the specification refers to a “backlight” as well as a “screen” or a “display,” and the specification does not state that these terms are being used interchangeably. *See, e.g.*, ’127 Patent at 1:23 (“device screen”). Also, Defendants have pointed out that Plaintiff’s expert has cited extrinsic evidence explaining that an LCD “requires a backlight to reproduce a picture.” (*Google/Samsung*, Dkt. No. 263, Ex. 4, Torben Rasmussen, *OLED vs. LCD*.) Defendants’ expert has opined:

The backlight is a subcomponent of the display, so a system monitoring display status could yield a different status than a system monitoring the backlight status. Indeed, the power going to the backlight is distinct from the power going to the graphics card and the LCD.

(*Id.*, Ex. 1, May 18, 2018 Pattison Decl., at ¶ 45.)

Plaintiff has submitted Samsung documents that refer to OLED displays (which Plaintiff states are emissive) as having “backlights.” (*See Google/Samsung*, Dkt. No. 191, Exs. T–W.). Yet, these do not appear to be technical documents. *See Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 678 (Fed. Cir. 2015) (“[l]anguage used in marketing materials directed to potential customers can mean something quite different from the language used in a patent directed to persons skilled in the art”).

Defendants have also submitted other extrinsic evidence that backlights are commonly used with non-emissive displays, such as LCDs. (*See Google/Samsung*, Dkt. No. 263, Ex. 2, Shunuski Kobayahi, et al., *LCD Backlights* 4 (“The backlight unit is a light source for LCDs which are not self-luminous.”); *see also id.*, Ex. 3, Mi-Yeon Yu, et al., *Correlation Between the Optical Performance of the Reflective Polarizer and the Structure of LCD Backlight* 256 (similar). Defendants’ expert has cited additional, similar extrinsic evidence. (*Id.*, Ex. 1, May 18, 2018 Pattison Decl., at pp. 9–10 nn.1–4; *see, e.g., id.*, p. 35 of 63, Shunsuke Kobayashi, et al., *LCD Backlights*, Preface (“There are two categories of electronic information displays: one is an emissive type such as CRTs, PDPs, ELDs, OLEDs, LEDs, and FEDs, and the other is a non-emissive type such as LCDs, electronic-papers and hard copy printings.”) (GOOGLE-SEVEN-CC-00000059).)

On the other hand, the specification refers to a broad range of display types:

The display device can include, by way of example but not limitation, a cathode ray tube (CRT), liquid crystal display (LCD), or some other applicable known or convenient display device.

'127 Patent at 20:53–57. Plaintiff has cited the opinion of its expert that such displays are not limited to “non-emissive” displays. (*See Google/Samsung*, Dkt. No. 191, Ex. L, May 18, 2018 Goodrich Decl., at ¶¶ 59–70; *see also id.*, at ¶ 69 (“. . . OLED displays *are* backlights in the ordinary sense of the word (i.e., a source of light behind a translucent or transparent viewing surface.”).)

Moreover, an extrinsic dictionary submitted by the parties refers to “backlit” in terms of illumination from behind rather than in terms of a “non-emissive display” as Defendants have proposed:

back-lit or backlit *adj.* Having a source of light, such as a lamp or LED behind a (usually translucent) viewing surface, in order to illuminate the surface.

back-lit display or backlit display *n.* Something illuminated from behind, rather than by a light source above or to the front.

(*Google/Samsung*, Dkt. No. 191, Ex. Q, *Microsoft Computer Dictionary* 48 (5th ed. 2002).)

Plaintiff has pointed out that these definitions do not state that the viewing surface must be “non-emissive.” Further, the specification refers to “observing . . . backlight status” as an example of “observ[ing] user activity,” which thus frames the purpose of observing backlight status in a context in which the type of the display does not appear to be significant. '127 Patent at 7:60–67. The above-reproduced technical definitions do, however, state that the illumination is from behind.

(*Google/Samsung*, Dkt. No. 191, Ex. Q, *Microsoft Computer Dictionary* 48 (5th ed. 2002).)

Finally, at the September 12, 2018 hearing, Defendants alternatively suggested that Plaintiff’s proposal of “viewing surface” could be replaced with “display,” but the parties’ oral arguments demonstrated that a dispute would likely arise as to the meaning of “display” in this context. In particular, the parties disputed whether a “display” can itself encompass illumination sources (such that no illumination source would be “behind” the display). This dispute is

essentially the same as the one regarding “non-emissive.” Defendants’ argument at the hearing, that OLED technology is fundamentally different from “backlit” technology (such as LCD), is unavailing. Although Defendants identified differences in the technology, Defendants have not shown that any of those differences are necessarily relevant to how the term “backlight” is used in the claims. On balance, “viewing surface” properly resolves the dispute, is readily understandable, and is consistent with the above-discussed technical dictionary that both sides have cited. (*See Google/Samsung*, Dkt. No. 191, at 3; *see also Google/Samsung*, Dkt. No. 263, at 2.)

Based on all of the foregoing, the Court hereby construes “**backlight**” to mean “**an illumination device that provides light behind a viewing surface.**” The Court further hereby finds that the term “**backlight status**” has its **plain meaning** apart from the Court’s construction of “backlight.” *See, e.g., Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy”).

B. “delay a timing of one or more triggers”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. The phrase is used consistent with its plain and ordinary meaning (i.e., “defer a timing of one or more triggers”).	“move the timing of one or more triggers to a later point of time”

(*Google/Samsung*, Dkt. No. 191, at 4; *Google/Samsung*, Dkt. No. 246, Ex. A, at 14; *Google/Samsung*, Dkt. No. 263, at 2.) The parties submit that this term appears in Claims 10 and 17. (*Google/Samsung*, Dkt. No. 172, at 7; *Google/Samsung*, Dkt. No. 246, Ex. A, at 14.)

(1) The Parties' Positions

Plaintiff argues that Defendants' proposed construction should be rejected because “[r]ewording ‘delay’ as ‘move to a later point of time’ does not clarify its meaning, which is neither unclear nor ambiguous.” (*Google/Samsung*, Dkt. No. 191, at 4.)

Defendants respond that “SEVEN criticizes Defendants’ construction as excluding indefinite delays, but the plain meaning of ‘delay’ implies a lag between the planned time for an event and an actual time.” (*Google/Samsung*, Dkt. No. 263, at 3.)

Plaintiff replies that “the patent contemplates that timing can be delayed indefinitely and nowhere suggests that the timing must be delayed for a predetermined time.” (*Google/Samsung*, Dkt. No. 279, at 1–2 (citing ’127 Patent at 12:34–36).)

(2) Analysis

The specification discloses that the timing of triggers can be modified:

In one implementation, the method comprises manipulating some or all of the triggers by delaying the first and subsequent [t]riggers to fire off at the same time as the last trigger. In another implementation, the method comprises manipulating some or all of the triggers by delaying at least one trigger and accelerating at least one trigger.

In one implementation, the method comprises identifying a specific type of trigger from the triggers, and based on the associations and the specific type of trigger, delaying the specific type of trigger for a time period.

’127 Patent at 3:38–47; *see id.* at 12:29–36 (“temporally move communications”; “Traffic scheduler 124 may also decide to delay transmission of data that is not relevant at a given time (for example, when the device is not actively used.”), 13:13–20 (“manipulate the timing of triggers”), 18:16–22 (“manipulate timing of alarms/timers by delaying at least one alarm/timer or accelerating at least one alarm/timer to synchronize the alarms/timers”) & 19:24–43 (“alarms/timers can be

manipulated (e.g., modified, delayed, accelerated, etc.) to cause the alarms/timers to fire off or be triggered all the [*sic*, all at the] same time”).

Plaintiff has also cited disclosure in the specification regarding preventing triggers from firing:

In one implementation, the mobile device can determine, from the tracking, patterns in which the triggers fire off, and use the patterns in manipulating the timing of some of the triggers to *prevent* the triggers from firing off when user activity is not predicted or when the battery level is below a threshold.

’127 Patent at 4:14–19 (emphasis added). Plaintiff has not shown, however, how this disclosure regarding “prevent[ing]” overrides the above-discussed context in which the specification uses the term “delay” with reference to a time period.

This understanding is also consistent with dictionary definitions submitted by Defendants in which “delay” refers to a time period or to a later time. (See *Google/Samsung*, Dkt. No. 263, Ex. 6, *Merriam-Webster’s Collegiate Dictionary* 304 (10th ed. 2002) (defining “delay” as to “put off,” to “postpone,” or “to stop, delay, or hinder for a time”); *see also id.*, Ex. 15, *Cambridge Academic Content Dictionary* 241 (2009) (defining “delay” as “to cause to be late or to cause to happen at a later time, or to wait before acting”)).

Thus, on balance, Plaintiff has not adequately supported its assertion that the disputed term could refer to delaying a trigger indefinitely. Nonetheless, this term does not necessarily require a showing that the trigger actually occurs. Some intervening circumstance could arise that prevents the occurrence, such as if a user powers down a device.

With that understanding, the Court hereby construes **“delay a timing of one or more triggers”** to mean **“move the timing of one or more triggers to a time after the trigger(s) were originally scheduled.”**

C. “adjust a timing of activities . . . to reduce usage of at least one resource”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. The phrase “adjust a timing of activities . . . to reduce usage of at least one resource” is used consistent with its plain and ordinary meaning.	“move a timing of activities . . . to reduce usage of at least one resource of the mobile device” ¹⁰

(*Google/Samsung*, Dkt. No. 191, at 4; *Google/Samsung*, Dkt. No. 246, Ex. A, at 18.) The parties submit that this term appears in Claims 33 and 42. (*Google/Samsung*, Dkt. No. 172, at 8; *Google/Samsung*, Dkt. No. 246, Ex. A, at 18.)

(1) The Parties’ Positions

Plaintiff urges that Defendants’ proposed construction should be rejected because “adjust” does not mean “move,” and Plaintiff argues that the patentee did not give the term “adjust” a special definition. (*Google/Samsung*, Dkt. No. 191, at 5.)

Defendants argue this term together with the term “delay a timing of one or more triggers,” which is addressed above. (*Google/Samsung*, Dkt. No. 263, at 3.)

Plaintiff replies that “there is no basis for redefining ‘adjust’ to mean ‘move’” (*Google/Samsung*, Dkt. No. 279, at 2.)

(2) Analysis

Defendants have not demonstrated any need to construe “adjust” to mean “move.” The dictionary definitions cited by Plaintiff suggest that introducing the word “move” would not serve to clarify the meaning of the disputed term. (*Compare Google/Samsung*, Dkt. No. 191, Ex. O, *The American Heritage Dictionary of the English Language* 22 (4th ed. 2000) (defining “adjust” to

¹⁰ Defendants previously proposed: “move a timing of activities . . . to reduce usage of at least one resource *on* the mobile device.” (*Google/Samsung*, Dkt. No. 263, at 2–3 (emphasis added).)

mean “[t]o change so as to match or fit; cause to correspond,” “[t]o bring into proper relationship,” and “[t]o adapt or conform, as to new conditions”) *with id.*, Ex. P, *Merriam-Webster’s Collegiate Dictionary* 761 (10th ed. 1993) (defining “move” as “to change the place or position of” and “to dislodge or displace from a fixed position”).)

Further, Plaintiff persuasively argues that Defendants’ proposal of “move” might exclude adjustments to frequency, such as increasing or decreasing an amount of time that elapses between occurrences of an activity.

The Court therefore hereby expressly rejects Defendants’ proposed construction. No further construction is necessary. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *see also O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”).

Nonetheless, to whatever extent Plaintiff is proposing that “adjust a timing of activities” could encompass eliminating the activities, Plaintiff has not supported such an interpretation. Likewise, Defendants have not shown that adjusting a timing of activities necessarily requires that all activities actually occur. These issues are addressed further above as to the “delay a timing . . .” term.

With that understanding, the Court hereby construes “**adjust a timing of activities . . . to reduce usage of at least one resource**” to have its **plain meaning**.

D. “wakelock[s]”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“a software-based mechanism for indicating that an application needs the mobile device to stay awake”	“a software-based mechanism for bringing the mobile device out of sleep mode” ¹¹

(*ZTE*, Dkt. No. 77, at 12; *ZTE*, Dkt. No. 86, at 16; *ZTE*, Dkt. No. 88, at 12; *Google/Samsung*, Dkt. No. 246, Ex. A at 15; *Google/Samsung*, Dkt. No. 263, at 3.) The parties submit that this term appears in Claims 10 and 17 of the ’127 Patent. (*ZTE*, Dkt. No. 61, at 4; *Google/Samsung*, Dkt. No. 172, at 7; *Google/Samsung*, Dkt. No. 246, Ex. A, at 15.)

(1) The Parties’ Positions

Plaintiff argues: “The key point is that alarms, not wakelocks, bring the device out of sleep mode. Wakelocks *associated with* the alarms perform the separate function of keeping the device awake after it has been brought out of sleep mode.” (*ZTE*, Dkt. No. 88, at 13 (emphasis in original).)

ZTE adopts the arguments presented by Google and Samsung. Google and Samsung respond that their proposal is consistent with the specification’s only description of wakelocks. (See *Google/Samsung*, Dkt. No. 263, at 3–4.) Google and Samsung also argue that “SEVEN’s proposal is based almost exclusively on extrinsic evidence relating to the accused Android products, which is improper.” (*Id.*, at 4.)

Plaintiff replies by reiterating that “[w]akelocks are not alarms, nor do they bring applications out of sleep mode.” (*Google/Samsung*, Dkt. No. 279, at 2.)

¹¹ *ZTE* previously proposed: “Plain and ordinary meaning.” (*ZTE*, Dkt. No. 85, Ex. A, at 14). After the close of briefing but prior to the September 12, 2018 hearing, *ZTE* adopted the proposal set forth by Google and Samsung.

(2) Analysis

The specification discloses:

In one implementation, the resource usage pattern detector 218 can detect or determine a pattern of firing off of alarms/timers. For example, some alarms/timers may be triggered during a certain period of time such as during night time, or when the backlight of the mobile device is off. For example, in the Android platform, some applications use *alarms associated with wake locks (WakeLock)* to bring the device out of sleep mode. When such a pattern is detected, the alarm/timer manipulator 222 can align multiple *alarms/timers associated with wake locks* to trigger at the same time or approximately the same time, such that all the scheduled tasks can be done without waking up the mobile device repeatedly. This aligning of multiple alarms/timers based on detected pattern can conserve battery power, improve CPU efficiency, and the like.

’127 Patent at 18:23–37 (emphasis added); *see id.* at 17:12–15 (“some applications can use alarms to wake up the mobile device 150 from a sleep mode to do a task”).

This disclosure distinguishes between “wakelocks” and “alarms/timers.” Further, Google and Samsung have cited the disclosure that “in the Android platform, some applications use alarms associated with wake locks (WakeLock) to bring the device out of sleep mode.” ’127 Patent at 18:27–30; *see id.* at 17:12–15 (quoted above). Such disclosure of alarms “associated with” wakelocks tends to refute, rather than support, Google and Samsung’s suggestion that wakelocks are used to bring a device out of sleep mode.

Also, during prosecution, the examiner found that certain prior art “teaches the use of wake locks by applications to prevent a device from entering a sleep or power-saving mode.” (ZTE, Dkt. No. 78, Ex. G, Aug. 15, 2016 Notice of Allowability, at 2 (P. App. 151).) This understanding of the examiner, though not framed as a definition, weighs in support of Plaintiff’s proposed interpretation because “[s]tatements about a claim term made by an Examiner during prosecution of an application may be evidence of how one of skill in the art understood the term at the time the application was filed.” *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1347 (Fed. Cir. 2005);

see Am. Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350, 1359 (Fed. Cir. 1984), *abrogated on other grounds by Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276 (Fed. Cir. 2011); *see also PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1304 (Fed. Cir. 2008).

Plaintiff further notes that the specification refers to the “Android” operating system. *See* ’127 Patent at 18:27–30 (reproduced above). Plaintiff submits extrinsic evidence of a website for Android developers that explains that “[a] wake lock is a mechanism to indicate that your application needs to have the device stay on.” (ZTE, Dkt. No. 78, Ex. L, PowerManager.WakeLock (P. App. 298); *see id.*, Ex. K, Paul Deitel, et al., *Android for Programmers: An App-Driven Approach* 305 (2012) (P. App. 296) (releasing the wakelock “indicat[es] that we no longer need to prevent the device from sleeping and the device can return to its normal power level”); *see also* ZTE, Dkt. No. 89, Ex. S, PowerManager.WakeLock (P. Resp. App. 40) (“Class [that] lets you say that you need to have the device on.”).) Also of note, disclosures in the ’254 Patent refer to wakelocks as preventing “deep sleep.” *See* ’254 Patent at 1:14–20 (“Wakelocks are power-managing software programs that may, in certain circumstances, prohibit a mobile device from going into deep dormancy.”) & 4:49–51 (“Applications can request wakelocks when they need to be certain that they execute the code. The wakelocks guarantee that CPU is not put to deep sleep while a wakelock is held.”).

Google and Samsung counter that “SEVEN’s proposal is based almost exclusively on extrinsic evidence relating to the accused Android products, which is improper.” (Google/Samsung, Dkt. No. 263, at 4.) As a general matter, “[a] claim is construed in the light of the claim language, the other claims, the prior art, the prosecution history, and the specification, not in light of the accused device.” *SRI Int’l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1118 (Fed. Cir. 1985). As noted above, however, the specification refers to Android, and the

extrinsic evidence cited by Plaintiff is consistent with the meaning of the term that is apparent in the above-cited intrinsic evidence.

The Court finds that Defendants' proposed construction imposes a limitation on the term "wakelock" that is not supported by the intrinsic or the extrinsic record.

Therefore, the Court hereby construes "**wakelock**" to mean "**a software-based mechanism for indicating that an application needs the mobile device to stay awake.**"

E. "optimize background traffic," "receive a selection from a user whether to optimize traffic," and "optimizes the use of battery, CPU and memory resources"

"optimize background traffic" (Claims 33, 42)	
Plaintiff's Proposed Construction	Defendants' Proposed Construction
The phrase "optimize background traffic" is not indefinite, and it is used consistent with its plain and ordinary meaning (i.e., "adjust background traffic to conserve network or mobile device resources").	Indefinite
"receive a selection from a user whether to optimize traffic" (Claims 33, 42)	
Plaintiff's Proposed Construction	Defendants' Proposed Construction
The phrase "receive a selection from a user whether to optimize traffic" is not indefinite, and it is used consistent with its plain and ordinary meaning (i.e., "receive a selection from a user whether to adjust traffic to conserve network or mobile device resources").	Indefinite

“optimizes the use of battery, CPU and memory resources”
 (Claims 13, 30, 38, 48)

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
The phrase “optimizes the use of battery, CPU and memory resources” is not indefinite, and it is used consistent with its plain and ordinary meaning (i.e., “conserves the use of battery, CPU, and memory resources”).	Indefinite

(*ZTE*, Dkt. No. 77, at 20; *ZTE*, Dkt. No. 85, Ex. A, at 11–12 & 13; *ZTE*, Dkt. No. 86, at 13; *ZTE*, Dkt. No. 88, at 18; *Google/Samsung*, Dkt. No. 246, Ex. A, at 16, 17 & 18; *Google/Samsung*, Dkt. No. 263, at 4; *see Google/Samsung*, Dkt. No. 172, at 8.)

(1) The Parties’ Positions

Plaintiff argues that “[t]he specification . . . repeatedly and consistently discloses embodiments of the invention that optimize the use of . . . resources and that do so by conserving them.” (*ZTE*, Dkt. No. 77, at 21.)

ZTE argues that the term “optimize” is “indefinite for failing to provide a clear meaning” because “[t]he term ‘optimize’ is a term of degree” that “is not defined in the claims or in the specification of the patent,” “optimize” “is not even mentioned once in the entire specification,” and “there is absolutely no basis revealed in the patent by which one would be able to determine what constitutes ‘optimize traffic.’” (*ZTE*, Dkt. No. 85, Ex. A, at 12–13.) *ZTE* presents substantially the same arguments as to the term “optimize background traffic.” (*See id.*, at 13–14.)

As to “optimize,” Plaintiff responds by citing the opinion of its expert that a person of ordinary skill in the art would understand that optimizing simply means improving or making more efficient. (*ZTE*, Dkt. No. 88, at 20.) As to “traffic,” Plaintiff submits that “ZTE again confuses breadth with indefiniteness.” (*Id.*) Plaintiff argues that “a person of ordinary skill in the art would

understand from reading the specification that the claimed ‘traffic’ refers to ‘network traffic.’” (*Id.*, at 21.) Plaintiff concludes that “the description of the invention and its embodiments in the specification show that optimizing traffic (i.e., improving network traffic or making network traffic more efficient) means adjusting it to conserve network or mobile device resources.” (*Id.*, at 22 (footnote omitted).)

ZTE responds that the term “optimize” is indefinite because “the specification uses the word ‘optimize’ but fails to describe the objective boundaries associated with this specified term of degree.” (ZTE, Dkt. No. 86, at 13.)

Google and Samsung similarly respond that “[t]hese terms are indefinite because the claim language and specification fail to provide any objective measure as to what constitutes ‘optimization’ of traffic or device resources.” (Google/Samsung, Dkt. No. 263, at 4.)

Plaintiff replies that “[r]eading the terms in the context of the specification, a person of ordinary skill in the art would understand that ‘optimize’ means ‘to improve the performance of’ or ‘to make more efficient’—neither of which depends on individual preferences or requirements—and that improving network traffic or making it more efficient means adjusting it to conserve network or mobile device resources.” (Google/Samsung, Dkt. No. 279, at 2.)

At the September 12, 2018 hearing, ZTE stated that it is no longer asserting that the word “traffic” is indefinite, but all Defendants maintained their indefiniteness arguments as to “optimize.”

(2) Analysis

The Supreme Court of the United States has “read [35 U.S.C.] § 112, ¶ 2 to require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled

in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014).

Further, “[t]he claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art.” *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014). Indeed, “a term of degree fails to provide sufficient notice of its scope if it depends on the unpredictable vagaries of any one person’s opinion.” *Id.* (citation and internal quotation marks omitted). Nonetheless, “[c]laim language employing terms of degree has long been found definite where it provided enough certainty to one of skill in the art when read in the context of the invention.” *Id.* at 1370.

In some cases, “[w]hether the patents-in-suit are invalid because the definition of [a claim term] fails to provide one skilled in the art with any objective standards for determining [when a claim term is met] is a matter more appropriately addressed on summary judgment.” *Mannatech, Inc. v. Techmedia Health, Inc.*, No. 3:06-CV-813, 2009 WL 3614359, at *15 (N.D. Tex. Oct. 29, 2009). Here, however, the parties have presented a dispute that can be readily resolved at this stage, and the determination as to definiteness or indefiniteness “is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), *abrogated on other grounds by Nautilus*, 134 S. Ct. 2120.

Claim 33, for example, recites (emphasis added):

33. A mobile device, comprising:
 - a memory;
 - a processor in communication with the memory and configured to execute instructions stored in the memory to:
 - receive a selection from a user whether to optimize traffic* of a first application executing in a background of the mobile device;
 - optimize background traffic* of the first application;

receive a selection from a user whether to enter a power save mode, where the power save mode is based on a battery level of the mobile device;

upon selection to enter the power save mode, adjust a timing of activities of a second application executing in the background of the mobile device to reduce usage of at least one resource of the mobile device;

exit the power save mode, wherein the power save mode is exited based on a battery level or in response to the user directing the mobile device to exit the power save mode.

Defendants reiterated at the September 12, 2018 hearing that the claims provide no context for understanding the meaning of “optimize,” in particular as to, in Defendants’ words, what “trade-offs” are being made. However, the specification uses the term “optimize” with reference to conserving resources (such as “battery power consumption, radio use, [and] processor/memory use”). For example:

The traffic can be managed such that network consumption, for example, use of the cellular network is conserved for effective and efficient bandwidth utilization. In addition, the host server 100 can manage and coordinate such traffic in the system such that use of device-side resources (e.g., including but not limited to battery power consumption, radio use, processor/memory use) are *optimized* with a general philosophy for resource conservation while still *optimizing* performance and user experience.

* * *

The proxy system distributed among the host server 100 and the device 150 can further track alarms/timers implemented by applications on a device and resources used by such alarms/timers to determine associations using which the proxy system can manipulate the alarms/timers to occur at an *optimal time to reduce resource usage*.

’127 Patent at 7:50–59 & 9:12–18 (emphasis added); *see id.* at 6:8–25 (“*optimized* trigger profile”) (emphasis added); *see also id.* at 10:4–11, 10:59–63 (“In general, the disclosed distributed proxy and cache system allows *optimization* of network usage, for example, by serving requests from the local cache 185, the local proxy 175 reduces the number of requests that need to be satisfied over the network 106.”) (emphasis added), 10:63–11:18, 12:29–33, 14:25–27 (“In one embodiment, a signaling *optimizer* reduces network requests to a minimum by caching content in the client and

letting its own server poll for changes in the network.”) (emphasis added) & 18:8–15 (“For example, if alarm 1 from application 202 uses a network resource every one minute, and alarm 2 from application 204 uses the same network resource every two minutes, based on the two associations, the alarm/timer manipulator 222 can manipulate alarms 1 and 2 to fire off at the same time every one and a half minutes (average of 1 minute and 2 minutes), or every two minutes (maximum of 1 minute and 2 minute), *thereby optimizing the use of network resources.*”) (emphasis added).

Plaintiff’s expert likewise opines that a person of ordinary skill in the art “would understand ‘optimization’ to be directed at conserving resources rather than achieving the mathematically absolute best usage of such resources.” (ZTE, Dkt. No. 78, Ex. H, Jan. 15, 2018 Goodrich Decl., at ¶ 138; *see id.*, at ¶ 137 nn.110–11 (citing technical dictionary definitions of “optimize” that refer to improving performance).) The general-purpose dictionary definition cited by Google and Samsung, which defines “optimize” as “to make as perfect, effective or functional as possible,” does not override the context provided by the above-cited intrinsic evidence. (Google/Samsung, Dkt. No. 263, Ex. 6, *Merriam-Webster’s Collegiate Dictionary* 815 (10th ed. 2002).)

On balance, the above-cited disclosures in the specification provide sufficient context and reasonable certainty for understanding how the patentee used the word “optimize” in the present disputed terms, bearing in mind that “absolute or mathematical precision is not required.” *Interval Licensing*, 766 F.3d at 1370; *see also id.* at 1373 (“We recognize that a patent which defines a claim phrase through examples may satisfy the definiteness requirement.”) (citing *Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1336 (Fed. Cir. 2010)).

Also, the district court decisions cited by Google and Samsung are not binding on this Court and are unpersuasive in light of the context provided by the above-cited intrinsic evidence. *See Bausch & Lomb Inc. v. Coopervision, Inc.*, No. 04-CV-6485T, 2008 WL 4890245, at *9 (W.D.N.Y. Nov. 12, 2008) (“[T]he term ‘optimize,’ unlike the term ‘minimize,’ incorporates subjective considerations.”); *see also Intellectual Ventures I LLC v. AT&T Mobility LLC*, No. 13-1668, 2016 WL 4363485, at *11 (D. Del. Aug. 12, 2016) (“The cited portions of the specification, however, do not provide adequate guidance as to the meaning of ‘optimize,’ nor do they rectify the indefiniteness of the portions of the specification indicating that QoS [(Quality of Service)] is subjective and varies by user.”). Further, the Federal Circuit’s affirmance of the *Intellectual Ventures* decision does not affect the proper outcome here because the word “optimize” is used in a different context and “claims of unrelated patents must be construed separately.” *e.Digital Corp. v. Futurewei Techs., Inc.*, 772 F.3d 723, 727 (Fed. Cir. 2014); *see Intellectual Ventures I LLC v. T-Mobile USA, Inc.*, 902 F.3d 1372 (Fed. Cir. 2018).

Therefore, the Court hereby construes these disputed terms as set forth in the following chart:¹²

<u>Term</u>	<u>Construction</u>
“optimize background traffic”	“adjust background traffic to conserve network or mobile device resources”
“receive a selection from a user whether to optimize traffic”	“receive a selection from a user whether to adjust traffic to conserve network or mobile device resources”

¹² The Court does not construe the term “optimizes the use of battery, CPU and memory resources,” which the parties have submitted appears in Claims 13, 30, 38, and 48 of the ’127 Patent, because Plaintiff is no longer asserting those claims.

V. DISPUTED TERMS IN UNITED STATES PATENT NO. 9,247,019

The '019 Patent, titled "Mobile Application Traffic Optimization," issued on January 26, 2016, and bears an earliest priority date of July 26, 2010. Plaintiff submits that "[t]he '019 Patent claims a mobile device configured to reduce traffic in a wireless network by manipulating the timing of content requests made by applications on the device." (*Google/Samsung*, Dkt. No. 191, at 5.) The Abstract of the '019 Patent states:

A system with distributed proxy for reducing traffic in a wireless network to satisfy data requests made by a mobile application the system [sic] is provided. The system includes a mobile device having a local proxy for intercepting a data request made by the mobile application where the local proxy simulating [sic, simulates] application server responses for the mobile application on the mobile device for data requests where responses are available in the local cache. A proxy server is coupled to the mobile device and an application server to which the data request is made. The proxy server is able to communicate with the local proxy where the local proxy forwards the data request to the proxy server for transmission to the application server for a response to the data request. The proxy server queries the application server independent of activities of the mobile application for any changes to the data request that the mobile application has previously made and notifies the local proxy of such changes.

F. "content requests," "delay content requests," and "align content requests"

"content requests" (Claims 1, 5, 20)	
Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary. The term "content requests" is not indefinite, and it is used consistent with its plain and ordinary meaning (i.e., "data requests").	Indefinite

“delay content requests” (Claim 1)	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. The term “delay content requests” is used consistent with its plain and ordinary meaning (i.e., “defer content requests”).	“move content requests to a later point of time”
“align content requests” (Claim 1)	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. This phrase is clear and unambiguous, and all of the terms in it are being used consistent with their plain and ordinary meanings (i.e., “adjust a timing of content requests to occur at approximately the same time”).	“adjust polling intervals of content requests to coincide regularly”

(*Google/Samsung*, Dkt. No. 191, at 6; *Google/Samsung*, Dkt. No. 246, Ex. A, at 2, 3 & 5; *Google/Samsung*, Dkt. No. 263, at 5, 7 & 8.)

(1) The Parties’ Positions

Plaintiff argues that Defendants’ proposed constructions “improperly limit the claims to content requests that have already been established” and “improperly imply that there must be a definite time at which the content requests are ultimately transmitted.” (*Google/Samsung*, Dkt. No. 191, at 7 & 8.) Plaintiff also argues that “the content requests can be aligned to occur just once, at a single point in time.” (*Id.*, at 7.)

Google and Samsung respond:

The claimed meaning of “content requests” is not discernible. It is not enough, as SEVEN does, to cobble together a definition for “content requests” using dictionary definitions of the constituent words in isolation with isolated selections from the

written description. What matters is the meaning of “content requests” as used in the claim, and that usage is indefinite.”

(*Google/Samsung*, Dkt. No. 263, at 5.) As to “delay content requests,” Google and Samsung argue that “the plain language of the claim recites delaying requests ‘made by multiple mobile applications,’ which shows that the request must be ‘made’ before it is ‘delayed.’” (*Id.*, at 7.) Google and Samsung also argue that “SEVEN’s construction allowing a ‘delay’ to be ‘indefinite’ would render the term indefinite because a POSITA could not determine the scope of the claim.” (*Id.*, at 7.) Finally, as to “align content requests,” Google and Samsung argue that their proposal is consistent with disclosure in a related provisional patent application to which the ’019 Patent claims priority. (*Id.*, at 8.) As to the specification of the ’019 Patent itself, Google and Samsung submit that “[w]hile not explaining what it means to ‘align content requests,’ the specification consistently, and solely, describes the alleged benefits of ‘aligning content requests’ as minimizing the number of times polling requests are made, and therefore reducing, *e.g.*, battery usage and network traffic.” (*Id.* (citations omitted).)

Plaintiff replies that the claim is clear as to which content requests are delayed, aligned, and suppressed. (*Google/Samsung*, Dkt. No. 279, at 2–3.) Plaintiff also argues that “delay” does not require moving to a particular point in time, and “[n]either the claim nor the specification provides a basis for limiting the claim to content requests that have already been made.” (*Id.*, at 3.) As to “align,” Plaintiff replies: “The claim states that the requests are aligned so they can be transmitted together, one time, at the end of the suppression period. Since those requests are not later *retransmitted*, there is no basis for construing the term to require regular, recurring transmissions.” (*Id.*)

(2) Analysis

On one hand, Google and Samsung properly submit that defining individual words within a term does not necessarily lead to a proper construction. *See Phillips*, 415 F.3d at 1321 (in rejecting approach that placed too much reliance on dictionaries, explaining that “[t]he main problem with elevating the dictionary to such prominence is that it focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent”).

On the other hand, “[i]n some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Phillips*, 415 F.3d at 1314.

Here, the specification confirms that “content” has a broad scope that may include, for example, audio, video, text, e-mail, messages, or application data. *See '019 Patent* at 4:19–35, 13:24–45, 14:4–7, 14:42–45, 16:31–37, 21:33–40 & 24:33–25:8. This scope may be broad, but “breadth is not indefiniteness.” *BASF Corp. v. Johnson Matthey Inc.*, 875 F.3d 1360, 1367 (Fed. Cir. 2017) (quoting *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1341 (Fed. Cir. 2005)).

Google and Samsung argue that “[t]he phrase ‘content requests’ is referenced seven times in claim 1, with no clear antecedent basis for the later occurrences of ‘content requests,’” and “[w]hile claim 1 requires several actions to be performed on some putative ‘content requests,’ the claim is hopelessly ambiguous as to which particular ‘content requests’ on which to perform each action.” (*Google/Samsung*, Dkt. No. 263, at 5–6.)

Claim 1 of the '019 Patent recites (emphasis added):

1. A mobile device configured for reducing traffic in a wireless network, the device configured to

delay content requests made by multiple mobile applications;

align content requests using observed activity of a user of the mobile device that includes a time since a last key press and mobile device properties;

poll in accordance with the aligned content requests to satisfy content requests of at least some of the multiple mobile applications,

monitor the time since a last key press, and, when the time

exceeds a predetermined time period, locally adjust the mobile device by suppressing the aligned content requests at the mobile device for a first suppression period, and after expiration of the first suppression period, transmit any aligned content requests,

suppress subsequent content requests at the mobile device for a second suppression period, where the second suppression period is longer than the first suppression period.

The antecedent basis for “the aligned content requests” and “aligned content requests” is the content requests in the limitation of “align content requests.” Also, the recital of “content requests of at least some of the multiple mobile applications” refers back to the “content requests made by multiple mobile applications.” As to the “subsequent content requests,” no antecedent basis is required, and Defendants have not demonstrated any confusion. The disclosure in a related provisional patent application cited by the parties is also informative. (See *Google/Samsung*, Dkt. No. 263, Ex. 7, United States Provisional Patent Application No. 61/416,020, at SEVENLIT0000153–55.) The opinions of Defendants’ expert as to indefiniteness are unpersuasive. (See *id.*, Ex. 5, May 18, 2018 Jeffay Decl., at ¶¶ 37–49.)

The Court therefore hereby expressly rejects Defendants’ indefiniteness argument. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568 (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *see also O2 Micro*, 521 F.3d at 1362; *Finjan, Inc.*

v. Secure Computing Corp., 626 F.3d 1197, 1207 (Fed. Cir. 2010) (“Unlike *O2 Micro*, where the court failed to resolve the parties’ quarrel, the district court rejected Defendants’ construction.”); *ActiveVideo Networks, Inc. v. Verizon Commcn’s, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015).

Plaintiff has not, however, adequately supported its assertion that the term “delay content requests” could refer to delaying indefinitely. The specification discloses that events can be “accumulate[d] for batch transfer” (’019 Patent at 19:47–64), but Plaintiff has not shown support for an indefinite time. Extrinsic dictionary definitions submitted by Defendants further reinforce that “delay” refers to moving to a later point in time. (See *Google/Samsung*, Dkt. No. 263, Ex. 6, *Merriam-Webster’s Collegiate Dictionary* 304 (10th ed. 2002) (defining “delay” as to “put off,” to “postpone,” or “to stop, delay, or hinder for a time”); *see also id.*, Ex. 15, *Cambridge Academic Content Dictionary* 241 (2009) (defining “delay” as “to cause to be late or to cause to happen at a later time, or to wait before acting”). Also, to whatever extent Plaintiff is arguing that “delay content requests” encompasses delaying the *creation* of content requests, Plaintiff’s proposal would essentially read out the recital that there must be “content requests.” The Court therefore rejects Plaintiff’s proposal as to this term.¹³

As to “aligning content requests,” the specification discloses adjusting the timing of content requests so as to coincide:

For example, based on detected behavior of multiple applications, the traffic shaping engine 255 can *align content requests* made by at least some of the applications over the network (wireless network) (e.g., via the alignment module 256). The alignment module can *delay or expedite some earlier received requests to achieve alignment*. When requests are aligned, the traffic shaping engine 255

¹³ To whatever extent the terms “delay” and “suppress” (in Claim 1 of the ’019 Patent) share a common meaning, using different terms to convey substantially the same meaning may be disfavored but is not prohibited. *See Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1373 (Fed. Cir. 2004) (“it is not unknown for different words to be used to express similar concepts, even though it may be poor drafting practice”).

can utilize the connection manager to poll over the network to satisfy application data requests. Content requests for multiple applications can be aligned based on behavior patterns or rules/settings including, for example, content types requested by the multiple applications (audio, video, text, etc.), mobile device parameters, and/or network parameters/traffic conditions, network service provider constraints/specifications, etc.

'019 Patent at 16:23–37 (emphasis added). A related provisional patent application likewise discloses:

The client needs to adjust the polling intervals in a favorable way. To make these times coincide regularly, one approach is to cause the times to be a multiple of a common factor or denominator.

(*Google/Samsung*, Dkt. No. 263, Ex. 7, United States Provisional Patent Application No. 61/416,020, at SEVENLIT0000154; *see id.* (referring to making a decision between rounding up and rounding down).)

To the extent that this provisional application and the specification refer to regular polling periods, however, this is a specific feature of particular disclosed embodiments that should not be imported into the claims. *See Phillips*, 415 F.3d at 1323. The Court therefore rejects Defendants' proposal of "regularly."

Based on all of the foregoing, the Court hereby construes these disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
"content requests"	Plain meaning
"delay content requests"	"move content requests to a later point in time"
"align content requests"	"adjust a timing of content requests so as to coincide"

G. “backlight status”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“the status of an illumination device positioned behind a viewing surface” ¹⁴	“the status of an illumination device positioned behind a non-emissive display” ¹⁵

(*Google/Samsung*, Dkt. No. 191, at 8; *Google/Samsung*, Dkt. No. 263, at 1.) The parties submit that this term appears in Claim 12. (*Google/Samsung*, Dkt. No. 172, at 4–5; *Google/Samsung*, Dkt. No. 246, Ex. A, at 6.)

(1) The Parties’ Positions

Plaintiff submits that this term presents substantially the same dispute as the term “backlight” in the ’127 Patent, addressed above. (*Google/Samsung*, Dkt. No. 191, at 8.)

Defendants respond as to this term together with the same term in the ’127 Patent and the ’129 Patent. (See *Google/Samsung*, Dkt. No. 263, at 1–2.)

Plaintiff replies as to this term together with the same term in the ’127 Patent and the ’129 Patent. (See *Google/Samsung*, Dkt. No. 279, at 1.)

(2) Analysis

The parties agree that this term in the ’019 Patent presents substantially the same issues as the same term in the ’127 Patent. For example, the specification refers to “observing . . . backlight status” as an example of “observ[ing] user activity.” ’019 Patent at 5:66–6:2; *see id.* at 10:47–51, 27:20–27 & 28:30–40; *see also id.* at 29:31 (“device screen goes idle”) & 29:34 (“device screen turns on”). Also, at the September 12, 2018 hearing, Plaintiff noted that one of the cited references

¹⁴ Plaintiff previously proposed: “The term ‘backlight status,’ when considered in light of the broader phrase ‘observed activity includes backlight status’ is used consistent with its plain and ordinary meaning (i.e., ‘observed activity includes whether a screen of the mobile device is on’).” (*Google/Samsung*, Dkt. No. 172, at 4–5.)

¹⁵ Defendants previously proposed: “the status of an illumination device positioned behind a non-emissive display.” (*Google/Samsung*, Dkt. No. 172, at 4–5.)

in the '019 Patent refers to “backlit displays, such as LCD, LED type or organic LED type displays.” United States Patent No. 7,786,623 at 7:35–39. The Court therefore reaches the same conclusions for substantially the same reasons.

The Court accordingly hereby construes “**backlight**” to mean “**an illumination device that provides light behind a viewing surface.**” The Court further hereby finds that the term “**backlight status**” has its **plain meaning** apart from the Court’s construction of “backlight.”

VI. DISPUTED TERMS IN UNITED STATES PATENT NO. 9,516,129

The '129 Patent, titled “Mobile Application Traffic Optimization,” issued on December 6, 2016, and bears an earliest priority date of July 26, 2010. Plaintiff submits that “[t]he '129 Patent claims mobile devices configured to satisfy data requests made by mobile applications while at the same time reducing network traffic.” (ZTE, Dkt. No. 77, at 23 (footnote omitted).) The Abstract of the '129 Patent states:

A method for reducing traffic in a cellular network used to satisfy data requests made by a mobile application is provided. The method includes intercepting a data request made by the mobile application on a mobile device, querying a local repository on the mobile device to determine if any locally stored response is valid, and querying a remote proxy for any remotely stored response if the locally stored response is invalid. Either the locally stored response or the remotely stored response is provided to the mobile device without the mobile device needing to access the cellular network. A related system is also disclosed.

H. “block”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. The term “block” is used consistent with its plain and ordinary meaning.	“intercept”

(*Google/Samsung*, Dkt. No. 191, at 9; *Google/Samsung*, Dkt. No. 246, Ex. A, at 19; *Google/Samsung*, Dkt. No. 263, at 9.) The parties submit that this term appears in Claims 1 and 17. (*Google/Samsung*, Dkt. No. 172, at 8; *Google/Samsung*, Dkt. No. 246, Ex. A, at 19.)

(1) The Parties' Positions

Plaintiff argues that Defendants' proposed construction should be rejected because "while 'intercept' and 'block' might be related in some contexts, they are not the same." (*Google/Samsung*, Dkt. No. 191, at 9.)

Google and Samsung respond: "As with 'delay content requests,' SEVEN takes the implausible position that the ordinary meaning of 'block' covers interrupting data transmissions that do not yet exist—completely inconsistent with the intrinsic evidence (which SEVEN does not address)." (*Google/Samsung*, Dkt. No. 263, at 9.)

Plaintiff replies that "Defendants' proposed construction excludes devices that block data requests by preventing them from being transmitted in the first place, which is another way to block them." (*Google/Samsung*, Dkt. No. 279, at 4.) Plaintiff argues that "there is no basis for limiting the claims to 'intercepting' data requests that have already been transmitted." (*Id.*)

(2) Analysis

Claim 1 of the '129 Patent, for example, recites (emphasis added):

1. A mobile device which improves network resource utilization in a wireless network, the mobile device, comprising:

- a radio;
- user interface;
- a memory unit having instructions stored thereon;
- a processor configured to:

- enter a first power management mode, wherein to enter the first power management mode is based on input from a user;

- while in the first power management mode, *block* transmission of outgoing application data requests for at least one application executing in a background of the mobile device and allow transmission of outgoing application data requests for at least one application executing in a foreground of the mobile device;

- enter a second power management mode, wherein entry into the second power management mode is based on a detected activity status, wherein the detected activity

status is based on a backlight status of the mobile device being off; while in the second power management mode, *block* transmission of outgoing application data requests for at least one application executing in background of the mobile device for a predetermined period of time.

Plaintiff argues that “[n]either the claims nor the specification redefine the term ‘block’ to mean only interrupting data transmissions that are already in progress.” (*Google/Samsung*, Dkt. No. 191, at 9.) To the extent that Plaintiff is proposing that a device can “block” “outgoing application data requests” by preventing the *creation* of such requests, such an interpretation would read out the recital that there must be “outgoing application data requests.”

As to the proper construction, Defendants’ proposal of “intercept” appears to find support in at least some disclosures in the specification:

One embodiment of the local proxy 275 further includes a request/transaction manager 235, which can detect, identify, *intercept*, process, [and] manage, data requests initiated on the device 250, for example, by applications 210 and/or 220, and/or directly/indirectly by a user request.

’129 Patent at 12:53–57 (emphasis added); *see id.* at 26:55–56 (“In process 702, a data request made by a mobile application is *intercepted*.”) (emphasis added); *see also id.* at 16:3–10, 16:20–51, 19:46–56, 23:30–44 & 23:56–67 & Fig. 7.

Plaintiff urged at the September 12, 2018 hearing, however, that the word “intercept” would improperly connote that transmission *has already begun*. Plaintiff argued that, in the context of surrounding claim language, the term “block” refers to *preventing* transmission because the claim recites that a processor is configured to “block *transmission* of outgoing application data requests.” Plaintiff’s arguments are persuasive that to “block transmission” means to prevent transmission.

This understanding is consistent with an extrinsic technical dictionary definition, cited by both sides (*see Google/Samsung*, Dkt. No. 191, at 9; *see also Google/Samsung*, Dkt. No. 263, at 10), that defines the verb “block” as meaning “[t]o prevent a signal from being transmitted.” (*Google/Samsung*, Dkt. No. 191, Ex. Q, *Microsoft Computer Dictionary* 64 (5th ed. 2002); *see Phillips*, 415 F.3d at 1318 (“We have especially noted the help that technical dictionaries may provide to a court ‘to better understand the underlying technology’ and the way in which one of skill in the art might use the claim terms.”).)

The Court therefore hereby construes “**block**” to mean “**prevent**.”

I. “executing in a background,” “executing in background,” and “executing in a foreground”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. These phrases are not indefinite, and are used consistent with their plain and ordinary meanings.	Indefinite

(*Google/Samsung*, Dkt. No. 191, at 10; *Google/Samsung*, Dkt. No. 246, Ex. A, at 21 & 22; *Google/Samsung*, Dkt. No. 263, at 10.) The parties submit that these terms appear in Claims 1 and 17. (*Google/Samsung*, Dkt. No. 172, at 8–9; *Google/Samsung*, Dkt. No. 246, Ex. A, at 21 & 22.)

(1) The Parties’ Positions

Plaintiff argues that “[a] person of ordinary skill in the art would understand that applications executing in the foreground are able to exchange information directly with a user, and applications executing in the background do not have direct access to input and output functions.”

(*Google/Samsung*, Dkt. No. 191, at 10 (footnote omitted).)¹⁶

¹⁶ Plaintiff similarly states that “‘foreground’ refers to scenarios, applications, or processes capable of user interaction, and ‘background’ refers to scenarios, applications, or processes incapable of user interaction.” (*Id.*, at 11.)

Google and Samsung respond that “[i]n the context of the intrinsic evidence, ‘background’ and ‘foreground’ lack reasonable certainty because the terms are used in different and inconsistent ways.” (*Google/Samsung*, Dkt. No. 263, at 10.) Google and Samsung argue that Plaintiff’s proposed interpretation, as set forth in its opening brief, is unworkable because “[a]n application, for instance, may consist of multiple processes, some of which might be ‘capable’ of user interaction and some of which may not.” (*Id.*, at 11.)

Plaintiff replies that “[t]he ’129 Patent consistently refers to applications running in the foreground as being capable of user interaction and applications in the background as being incapable of user interaction.” (*Google/Samsung*, Dkt. No. 279, at 4 (citing ’129 Patent at 5:10–14, 12:1–8 & 13:19–24).)

(2) Analysis

Defendants argue that, for example, “a music application not visible but playing music, or a browser overlapped by a map application, can be characterized as being in both the ‘foreground’ and the ‘background.’” (*Google/Samsung*, Dkt. No. 263, at 10.) Defendants conclude that the terms “foreground” and “background” lack objective boundaries. (*Id.*)

Defendants likewise submit that the specification discloses what Defendants characterize as a “sliding scale” (*id.*) between “background” and “foreground” operation:

The logic for automatically adding content sources/application servers (e.g., including URLs/content) to be monitored can also check for various factors like how often the content is the same, how often the same request is made (is there a fixed interval/pattern?), which application is requesting the data, etc. Similar rules to decide between using the cache and request the data from the original source may also be implemented and executed by the local proxy and/or server.

For example, when the request comes at an unscheduled/unexpected time (user initiated check), or after every (n) consecutive times the response has been provided from the cache, etc., or if the application is running *in the background vs. in a more interactive mode of the foreground*.

’129 Patent at 5:1–14. This disclosure describes the foreground as being more interactive than the background, but Defendants have not shown how this amounts to a “sliding scale” between foreground and background. (*Google/Samsung*, Dkt. No. 263, at 10.)

Defendants have also cited disclosure regarding maximizing and minimizing:

In one embodiment, user activity module 215 can detect and track user activity with respect to applications, documents, files, windows, icons, and folders on the device 250. For example, the user activity module 215 can detect when an application or window (e.g., a web browser) has been exited, closed, *minimized*, *maximized*, opened, *moved into the foreground, or into the background*, multimedia content playback, etc.

’129 Patent at 12:1–8; *see id.* at 30:44–45 (“. . . if a user selects ‘exit’ or minimizes (sends to background) . . .”).

This distinction between maximizing and moving into the foreground (and between minimizing and moving into the background) does not suggest a sliding scale but rather suggests merely that an application could be moved into the foreground without necessarily being maximized and could be moved into the background without necessarily being minimized.

On balance, the opinion of Plaintiff’s expert is persuasive that “‘background’ refers to scenarios, applications, or processes without user interaction, and ‘foreground’ refers to scenarios, applications, or processes capable of user interaction” (albeit with the understanding that this refers to a current state of execution rather than an application’s capabilities more generally). (*Google/Samsung*, Dkt. No. 191, Ex. L, May 18, 2018 Goodrich Decl., at ¶ 297.)¹⁷

¹⁷ Plaintiff has also submitted an extrinsic “Encyclopedia” document that explains “foreground/background” as follows (*Google/Samsung*, Dkt. No. 191, Ex. R):

A priority assigned to programs running in a multitasking environment. The foreground contains the applications the user is working on, and the background contains the applications that are behind the scenes, such as certain operating system functions, printing a document or accessing the network. Users may find all sorts of programs running in the background that they are not aware of

Google and Samsung have suggested an example of a music application that might not currently be visible to a user but that might nonetheless respond to user input such as the user pressing volume control buttons. At the September 12, 2018 hearing, Defendants similarly suggested an example of an e-mail application icon (which the user might see on a home screen) indicating availability of new e-mail without the user actually selecting the e-mail application.

Yet, Defendants have not identified any such disclosures in the intrinsic evidence. Any dispute that may arise in this regard presents factual issues regarding infringement rather than any legal question for claim construction. *See Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007) (“[A] sound claim construction need not always purge every shred of ambiguity. The resolution of some line-drawing problems . . . is properly left to the trier of fact.”) (citing *PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998) (“after the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact”)); *see also Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1318–19 (Fed. Cir. 2016) (citing *Acumed* and *PPG*).

The Court therefore hereby construes these disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“executing in a background”	“executing without user interaction”
“executing in background”	
“executing in a foreground”	“executing with user interaction”

J. “backlight [status]”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“[the status of] an illumination device positioned behind a viewing surface” ¹⁸	“the illumination device that provides light behind a non-emissive display”

(*Google/Samsung*, Dkt. No. 191, at 11; *Google/Samsung*, Dkt. No. 246, Ex. A, at 24 & 25.) The parties submit that this term appears in Claims 1, 2, 3, 17, 18, and 19. (*Google/Samsung*, Dkt. No. 172, at 9–10; *Google/Samsung*, Dkt. No. 246, Ex. A, at 24 & 25.)

(1) The Parties’ Positions

Plaintiff submits that this term presents substantially the same dispute as the same term in the ’127 Patent and the ’019 Patent. (*Google/Samsung*, Dkt. No. 191, at 11.)

Defendants respond as to these terms together with the same terms in the ’127 Patent and the ’019 Patent. (*See Google/Samsung*, Dkt. No. 263, at 1–2.)

Plaintiff replies as to these terms together with the same terms in the ’127 Patent and the ’019 Patent. (*See Google/Samsung*, Dkt. No. 279, at 1.)

(2) Analysis

The parties agree that this term in the ’129 Patent presents substantially the same issues as the same term in the ’127 Patent. For example, the specification refers to “observing . . . backlight status” as an example of “observ[ing] user activity.” ’129 Patent at 6:38–39; *see id.* at 11:28–32, 33:11–18 & 34:23–33; *see also id.* at 35:28 (“device screen goes idle”) & 35:31 (“device screen turns on”). The Court therefore reaches the same conclusions for substantially the same reasons.

¹⁸ Plaintiff previously proposed that this term, as used as part of broader phrases, is used consistent with its plain and ordinary meaning. (*Google/Samsung*, Dkt. No. 172, at 9–10.)

The Court accordingly hereby construes “**backlight**” to mean “**an illumination device that provides light behind a viewing surface.**” The Court further hereby finds that the term “**backlight status**” has its **plain meaning** apart from the Court’s construction of “backlight.”

K. “battery charge status”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“battery level”	“status of the battery’s charge state” ¹⁹

(*ZTE*, Dkt. No. 77, at 24; *ZTE*, Dkt. No. 85, Ex. A, at 16; *ZTE*, Dkt. No. 86, at 18; *ZTE*, Dkt. No. 88, at 23; *Google/Samsung*, Dkt. No. 246, Ex. A, at 26; *Google/Samsung*, Dkt. No. 263, at 11 n.13.) The parties submit that this term appears in Claims 6 and 22. (*ZTE*, Dkt. No. 61, at 6; *Google/Samsung*, Dkt. No. 172, at 10.)

(1) The Parties’ Positions

Plaintiff argues that its proposed construction “adds clarity and is supported by the specification.” (*ZTE*, Dkt. No. 77, at 25.)

Defendants propose “status of the battery’s charge state” because “this proposed definition makes the most sense in the context of the claims and the specification.” (*ZTE*, Dkt. No. 85, Ex. A, at 17.)

Plaintiff responds that “it is clear from the way the specification uses ‘battery level’ that the term is synonymous with the claim term ‘battery charge status.’” (*ZTE*, Dkt. No. 88, at 24–25

¹⁹ Google and Samsung previously proposed: “Plain and ordinary meaning.” (*Google/Samsung*, Dkt. No. 172, App’x B, at 25; *Google/Samsung*, Dkt. No. 246, Ex. A, at 26.) Google’s Amended Responsive Claim Construction Brief, however, states that “Google adopts ZTE’s alternate construction briefing for this term.” (*Google/Samsung*, Dkt. No. 263, at 11 n.13; *see Google/Samsung*, Dkt. No. 268 (Samsung).) ZTE had argued that this term is indefinite because “a POSITA would not have reasonable certainty as to the scope of the invention, even after reviewing the specification and prosecution history.” (*ZTE*, Dkt. No. 85, Ex. A, at 16.) Prior to the September 12, 2018 hearing, ZTE’s counsel informed the Court by e-mail that this term is no longer disputed as to ZTE because Plaintiff is no longer asserting the applicable claims against ZTE. Google and Samsung, however, maintained their adoption of ZTE’s arguments as to ZTE’s alternative proposed construction.

(footnote omitted).) As to Defendants' proposal, Plaintiff responds that “‘status of the battery’s charge state’ is cumbersome, redundant, and more difficult for a lay jury to understand.” (*Id.*, at 25.)

Defendants respond that “SEVEN’s proposed definition ‘battery level’ is incorrect because it endorses a construction that lacks a proper antecedent basis, and because it would render a term that is actually used within the specification meaningless.” (ZTE, Dkt. No. 86, at 18.)

(2) Analysis

The specification discloses:

In addition, the local proxy 175 can identify and retrieve mobile device properties including, one or more of, *battery level*, network that the device is registered on, radio state, whether the mobile device is being used (e.g., interacted with by a user).

* * *

For example, when congestion is detected in a user’s network service area, content requests can be aligned for [when] the network is less congested. For example, when user is inactive, or when the *battery is low*, alignment may be performed more aggressively.

* * *

The local proxy can delays or modifies [*sic*] data prior to transmission to the proxy serve[r] and can additionally identify and retrieve mobile device properties including, one or more of, *battery level*, network that the device is registered on, radio state, [and] whether the mobile device is being used.

’129 Patent at 8:46–50, 25:52–56 & 26:18–22 (emphasis added); *see id.* at 29:63–30:2 (“polling for battery level”) & 35:46–49 (same).

Defendants have pointed to disclosures regarding not going into a power save mode when the device is plugged in to a charger, and Claim 6 seemingly recites a similar limitation that “entry into the first power management mode is based on a battery charge status.” *See id.* at 34:34–35 (“Devices should come out of and not go into power save mode if they are ‘plugged in’ to

charge.”); *see also id.* at 25:17–18 (“In one embodiment, power save mode is not applied when the device is plugged into a charger.”). Nonetheless, the specification distinguishes between the battery “level” and whether the battery is being charged, and a fair reading is that the term “battery charge status” refers to the former rather than the latter.

Indeed, Claim 4 already separately recites a limitation that “entry into the first power management mode is further based on whether the mobile device is plugged into an external power source.” At the September 12, 2018 hearing, Defendants argued that Claim 4 does not support Plaintiff’s proposal because the device could be charging in some fashion other than being “plugged in,” but Defendants’ argument is unpersuasive in light of the absence of any disclosure regarding wireless charging or any other charging method besides being “plugged in.” *See ’129 Patent* at 25:17–18 & 34:34–35 (quoted above).

The intrinsic evidence thus supports Plaintiff’s proposal of “battery level,” and the disputed term is reasonably clear. *See Nautilus*, 134 S. Ct. at 2129. Based on all of the foregoing, the Court hereby construes “**battery charge status**” to mean “**battery level**.”

VII. DISPUTED TERMS IN UNITED STATES PATENT NO. 9,351,254

The ’254 Patent, titled “Method for Power Saving in Mobile Devices by Optimizing Wakelocks,” issued on May 24, 2016, and bears an earliest priority date of January 22, 2014. Plaintiff submits that “[t]he ’254 Patent claims a mobile device designed to conserve battery power when the device is in a power-optimization state by releasing the system wakelock when the application(s) holding the wakelock are not critical to the user’s experience (not identified on a ‘whitelist’).” (*Google/Samsung*, Dkt. No. 191, at 11–12.) The Abstract of the ’254 Patent states:

A method for conserving device and/or network resources is provided herein. The method includes detecting a wakelock operating on a mobile device and determining a consumption of one of a power or radio usage attributed to the detected wakelock. The method further includes determining a criticality related

to user experience for the detected wakelock and releasing the detected wakelock based on the determined consumption and criticality. Related systems and mobile devices are also disclosed.

L. “not critical to user experience” and “wherein the application is non-critical”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. These phrases are defined by the claim language itself, which makes it clear that an application is “not critical to user experience” when the application is “not identified on a whitelist.”	Indefinite

(*Google/Samsung*, Dkt. No. 172, at 6; *Google/Samsung*, Dkt. No. 191, at 12; *Google/Samsung*, Dkt. No. 246, Ex. A, at 11; *Google/Samsung*, Dkt. No. 263, at 11.) The parties submit that these terms appear in Claims 1, 10, and 28. (*Google/Samsung*, Dkt. No. 172, at 6; *Google/Samsung*, Dkt. No. 246, Ex. A, at 11.)

(1) The Parties’ Positions

Plaintiff argues that “Defendants ignore the following limitation of the claim, which expressly defines when an application is critical to a user’s experience.” (*Google/Samsung*, Dkt. No. 191, at 12.)

Google and Samsung respond that “[t]hese terms are indefinite because they are subjective on their face, and neither the claim language nor specification provide guidance as to what is non-critical to user experience.” (*Google/Samsung*, Dkt. No. 263, at 11–12.)

Plaintiff replies: “Defendants concede that if an application is not on the whitelist, it is not critical. . . . As a matter of logic, if an application is critical, it is on the whitelist.” (*Google/Samsung*, Dkt. No. 279, at 4.)

(2) Analysis

At first blush, the phrase “not critical to user experience” appears to be analogous to the phrase “aesthetically pleasing” in *Datamize*, wherein the court found that term to be “completely dependent on a person’s subjective opinion” and therefore indefinite. 417 F.3d at 1350 (“In the absence of a workable objective standard, ‘aesthetically pleasing’ does not just include a subjective element, it is completely dependent on a person’s subjective opinion.”); *see Interval Licensing*, 766 F.3d at 1371–74 (finding “in an unobtrusive manner that does not distract a user” was subjective).

Here, however, the claims themselves provide an objective standard by explicitly defining “non-critical” with reference to a “whitelist.” Claim 1 of the ’254 Patent is representative and recites (emphasis added):²⁰

1. A mobile device comprising:

a display screen; a memory, and a processor, the mobile device configured to:

acquire a system wakelock in response to an application wakelock acquisition request;

detect an activity state of the mobile device based on a status of the display screen;

enter a power optimization state based on the detected activity state;

release the system wakelock based upon entering the power optimization state when the application that made the acquisition request is *not critical to user experience*, *wherein the application is non-critical when the application is not identified on a whitelist*;

acquire the system wakelock in response to a subsequent wakelock acquisition request from another application on the mobile device when the another application making the subsequent wakelock acquisition request is identified on the whitelist.

A fair reading is that the claims use “non-critical” (as defined by referring to a whitelist) to define “not critical to user experience.” The reference to a “whitelist” provides an objective

²⁰ The other independent claims of the ’254 Patent contain similar recitations. *See ’254 Patent at Cls. 10, 16, 22 & 28.*

standard for determining whether an application is “not critical to user experience,” and the parties have not presented “whitelist” as a disputed term. Google and Samsung argue that referring to a “whitelist” is circular because the whitelist simply lists applications that are deemed to be critical to user experience. (*See Google/Samsung*, Dkt. No. 263, at 12–13.) This argument is unavailing. Even if subjective considerations may be involved in *creating* the whitelist, the whitelist nonetheless serves as an objective standard for *evaluating* whether a particular application is “non-critical.” The opinions of Google and Samsung’s expert to the contrary are unpersuasive. (*See Google/Samsung*, Dkt. No. 263, Ex. 5, May 18, 2018 Jeffay Decl., at ¶¶ 128–136.) Also, Plaintiff’s expert opines that “whitelist” is a well-known term of art, and Defendants have not shown otherwise. (*Google/Samsung*, Dkt. No. 191, Ex. M, May 18, 2018 Smith Decl. at ¶ 48.)

Finally, Google and Samsung argue that the phrase “wherein the application is non-critical when the application is not identified on a whitelist” does not fully clarify the phrase “not critical to user experience” because:

If an application is not on the whitelist, it is not critical. But if an application *is* on the whitelist, nothing in the claim language requires that the opposite be true (*i.e.*, that an application on a whitelist *is* critical); the whitelisted application could be critical or non-critical depending on the user’s subjective preferences.

(*Google/Samsung*, Dkt. No. 263, at 12.) At the September 12, 2018 hearing, Defendants similarly argued that there may be applications that *are* “critical” that are *not* on the whitelist and there may be applications that are *not* critical that *are* on the whitelist.

The claims, however, are not directed to these other hypothetical inquiries. Instead, the limitation here at issue recites evaluating whether an application is “not critical to user experience” by checking whether the application is not on the whitelist. If the application is *not* on the whitelist, then the device concludes that the application is “not critical to user experience.” If the application *is* on the whitelist, then the device concludes that the application is *not* “not critical to user

experience.” The limitation here at issue requires nothing more, and any other hypothetical inquiries, such as regarding the feelings of a particular user under particular circumstances, are irrelevant.

The Court therefore hereby expressly rejects Defendants’ indefiniteness argument. No further construction is necessary in light of the above-discussed accompanying explanatory language recited in the claims. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes “**not critical to user experience**” and “**wherein the application is non-critical**” to have their **plain meaning** in light of surrounding claim language.

M. “system wakelock”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“software-based mechanism for keeping the CPU awake”	“the actual wakelock controlling the CPU wakeup state, and is triggered by the wakelocks set by the applications” ²¹

(*ZTE*, Dkt. No. 77, at 27; *ZTE*, Dkt. No. 85, Ex. A, at 9; *ZTE*, Dkt. No. 86, at 10; *ZTE*, Dkt. No. 88, at 27; *Google/Samsung*, Dkt. No. 246, Ex. A, at 10; *Google/Samsung*, Dkt. No. 263, at 13.) This term appears in Claims 1, 8, 9, 10, 14, 15, 28, 32, and 33 of the ’254 Patent. (*Google/Samsung*, Dkt. No. 172, at 6; *Google/Samsung*, Dkt. No. 246, Ex. A, at 10; *see ZTE*, Dkt. No. 61, at 3.)

²¹ ZTE previously proposed: “Plain and ordinary meaning. No construction necessary.” (*ZTE*, Dkt. No. 85, Ex. A, at 9). After the close of briefing but prior to the September 12, 2018 hearing, ZTE adopted the proposal set forth by Google and Samsung. Google and Samsung have stated: “To be clear, [Google and Samsung] are arguing that this is the ordinary meaning of the term, and arguing in the alternative that the patentee acted as his own lexicographer.” (*Google/Samsung*, Dkt. No. 263, at 13 n.15). At the September 12, 2018 hearing, as well as in the parties’ July 24, 2018 Joint Claim Construction Chart, Google and Samsung have not explicitly proposed a “plain meaning” construction but rather have proposed that “system wakelock” be construed as stated in the chart in the text. (*Google/Samsung*, Dkt. No. 246, Ex. A, at 10).

(1) The Parties' Positions

Plaintiff submits that the dispute regarding this term is similar to the dispute regarding the term “wakelock” in the above-addressed ’127 Patent, and Plaintiff reiterates that “a person of ordinary skill in the art at the time of the invention would have understood that a wakelock is a software-based mechanism for indicating that an application needs the mobile device to stay awake.” (ZTE, Dkt. No. 77, at 27.)

ZTE adopts the arguments presented by Google and Samsung. Google and Samsung respond that the specification expressly defines this term. (*Google/Samsung*, Dkt. No. 263, at 13 (citing ’254 Patent at 5:28–34).) Google and Samsung argue that Plaintiff’s proposed construction would read out the word “system,” and that “[a person of ordinary skill in the relevant art] would understand, however, that a ‘system’ wakelock is exactly what it says—a system-level wakelock that is triggered by the application wakelocks.” (*Google/Samsung*, Dkt. No. 263, at 13.)

Plaintiff replies that “[a]s explained in SEVEN’s briefing in the ZTE case, SEVEN’s construction is consistent with the patent’s use of the term and clarifies the difference between *system* wakelocks and *application* wakelocks.” (*Google/Samsung*, Dkt. No. 279, at 5 (emphasis in original).)

(2) Analysis

The Background section of the specification states: “Wakelocks are power-managing software programs that may, in certain circumstances, prohibit a mobile device from going into deep dormancy.” ’254 Patent at 1:14–16. This disclosure essentially aligns with how the term “wakelock” is used in the above-discussed ’127 Patent, which Plaintiff cites here as well.

Yet, the disputed term here is not merely “wakelock” but rather is “system wakelock.” The ’254 Patent contains explicit disclosure regarding the term “system wakelock”:

Applications can request wakelocks when they need to be certain that they execute the code. The wakelocks guarantee that CPU is not put to deep sleep while a wakelock is held.

* * *

In some embodiments, a wakelock optimizer is disclosed. The wakelock optimizer can identify targeted wakelocks for specific applications. The targeted wakelocks and applications are such that they are considered unnecessary or potentially unnecessary based on the pre-determined criteria.

In some embodiments, the wakelock optimizer monitors such wakelocks, and once they are observed to be acquired, releases *the system wakelock (which is the actual wakelock controlling the CPU wakeup state, and is triggered by the wakelocks set by the applications)* while monitoring whether any other, non-targeted, wakelock is acquired, and restore the system wakelock if they are. The wakelock optimizer also considers end user activity and screen state as parameters to restore the system wakelock if needed.

Id. at 4:49–51 & 5:23–36 (emphasis added).

This disclosure, which explicitly sets forth what the system wakelock “is,” rises to the level of a lexicography. *See, e.g., CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002); *Phillips*, 415 F.3d at 1316.

Alternatively, even if this disclosure did not rise to the level of a lexicography, Plaintiff has agreed that this disclosure, in particular the parenthetical, “provides the basis for understanding the term’s plain-and-ordinary meaning,” and Plaintiff has stated that “there is no dispute that the patent describes a ‘system wakelock’ as ‘the actual wakelock controlling the CPU wakeup state.’” (ZTE, Dkt. No. 88, at 27.) To the extent that the parties agree that the above-reproduced disclosure merely sets forth the well-known plain meaning of this term (such that arguably this disclosure is

not truly a “lexicography”),²² construction is nonetheless necessary in light of the parties’ apparent disagreement as to the plain and ordinary meaning.

Therefore, the Court hereby construes “**system wakelock**” to mean “**the actual wakelock that controls the CPU wakeup state and that is triggered by the wakelocks set by applications.**”²³

VIII. DISPUTED TERMS IN UNITED STATES PATENT NO. 9,325,600

The ’600 Patent, titled “Offloading Application Traffic to a Shared Communication Channel for Signal Optimization in a Wireless Network for Traffic Utilizing Proprietary and Non-Proprietary Protocols,” issued on April 26, 2016, and bears an earliest priority date of June 11, 2013. Plaintiff submits that “[t]he ’600 Patent claims systems for reducing network traffic between applications on a mobile device and external servers that communicate with those applications.”

(*Google/Samsung*, Dkt. No. 191, at 12.) The Abstract of the ’600 Patent states:

A method for conserving network and battery usage is provided. The method includes determining that a device is communicating over at least two overlapping push channels and blocking one of the push channels to eliminate or reduce overlap between the at least two overlapping push channels. Related systems are also provided.

²² See *Phillips*, 415 F.3d at 1316 (“[O]ur cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.”) (citing *CCS Fitness*, 288 F.3d at 1366).

²³ At the September 12, 2018 hearing, Plaintiff indicated that the construction of “wakelock” in the ’127 Patent (addressed above) should apply in the ’254 Patent. Defendants did not object at the hearing. Although ZTE’s briefing opposed Plaintiff’s suggestion that “wakelock” has the same meaning in both patents (*see ZTE*, Dkt. No. 86, at 11), ZTE did not express this concern at the hearing. The absence of any objection by ZTE was consistent with ZTE choosing to adopt the arguments presented by Google and Samsung rather than maintain its own proposal. Also, the ’254 Patent contains disclosures that are consistent with how the term “wakelock” is used in the ’127 Patent. *See ’254 Patent at 1:14–20* (“Wakelocks are power-managing software programs that may, in certain circumstances, prohibit a mobile device from going into deep dormancy.”); *see also id.* at 4:49–51 (“Applications can request wakelocks when they need to be certain that they execute the code. The wakelocks guarantee that CPU is not put to deep sleep while a wakelock is held.”). Finally, like the ’127 Patent, the ’254 Patent refers to Android, so the extrinsic evidence submitted by Plaintiff regarding the meaning of “wakelock” in the context of Android in the ’127 Patent appears to be similarly applicable to the ’254 Patent. The Court therefore finds that the term “wakelock” has the same construction in the ’254 Patent as in the ’127 Patent.

N. “non-transitory computer readable media . . . comprising: blocking . . .; offloading . . .; monitoring . . .; unblocking . . .; re-blocking . . .”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
The preamble is limiting, it is not indefinite, and it is used consistent with its plain and ordinary meaning (i.e., “non-transitory computer readable media containing computer code to implement a processor controlled system for reducing network traffic, comprising instructions for:”)	Indefinite

(*Google/Samsung*, Dkt. No. 172, at 5–6; *Google/Samsung*, Dkt. No. 191, at 13; *Google/Samsung*, Dkt. No. 246, Ex. A, at 9; *Google/Samsung*, Dkt. No. 263, at 14.) The parties submit that this term appears in Claim 7. (*Google/Samsung*, Dkt. No. 172, at 5–6; *Google/Samsung*, Dkt. No. 246, Ex. A, at 9.)

(1) The Parties’ Positions

Plaintiff argues that “this is a system claim that includes functional language” and therefore is not an indefinite mixed method-apparatus claim. (*Google/Samsung*, Dkt. No. 191, at 14.)

Google and Samsung respond that “[a]s drafted, claim 7 recites the archetypical mixed method-system claim that has routinely been held invalid for reciting ‘both a system and the method for using that system.’” (*Google/Samsung*, Dkt. No. 263, at 14 (quoting *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005))). Google and Samsung argue that, unlike in the precedent cited by Plaintiff, “the claim language here provides no indication that the system must have the capability of performing the enumerated method steps as opposed to actually performing these steps.” (*Id.*, at 15.)

Plaintiff replies that “[t]he body of the claim describes what the system is able to do, not steps that must be performed to infringe.” (*Google/Samsung*, Dkt. No. 279, at 5.)

(2) Analysis

Plaintiff argues: “The subject matter of the claim is not simply non-transitory computer readable media. It is computer code that implements a system. And the limitations in the body of the claim recite functions that the *system* must be able to perform—i.e., blocking, offloading, monitoring, unblocking, and re-blocking traffic on the claimed common and non-common channels.” (*Google/Samsung*, Dkt. No. 191, at 14.) Claim 7 of the ’600 Patent recites:

7. Non-transitory computer readable media containing computer code to implement a processor controlled system for reducing network traffic, comprising:

blocking a first channel such that network signaling and battery consumption are reduced, wherein the first channel includes a non-common channel;

offloading application traffic of an application onto a second channel, wherein the second channel includes a common channel;

monitoring the application traffic of the application over the second channel;

unblocking the first channel based on the monitored application traffic over the second channel so that the application can perform an action; and

re-blocking the first channel after the action has been completed.

On balance, the claim recites “permissible functional language used to describe capabilities of the” computer code. *MasterMine Software, Inc. v. Microsoft Corp.*, 874 F.3d 1307, 1315 (Fed. Cir. 2017); *see Microprocessor Enhancement Corp. v. Tex. Instruments Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008)). Despite Defendants’ arguments at the September 12, 2018 hearing as to purported lack of special necessary language, Defendants have not shown that this claim is anything other than a typical “*Beauregard*” claim. *See CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1287 (Fed. Cir. 2013) (“named for *In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995) . . . [c]laims in *Beauregard* format formally recite a tangible article of manufacture—a computer-readable medium, such as a computer disk or other data storage device—but such claims also require the device to contain a computer program for directing a computer to carry out a specified process”).

Defendants have cited *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339–40 (Fed. Cir. 2011), in which the Court of Appeals for the Federal Circuit rejected the patentee's request to insert apparatus language to avoid indefiniteness for an apparatus claim that included a method step. *Rembrandt*, however, involved a series of apparatus limitations followed by a method step limitation. *See id.* Here, by contrast, the claim recites computer readable media with computer code, and a fair reading of the claim as a whole is that the limitations set forth in the body of the claim refer to computer code. *Rembrandt* is therefore inapplicable.

The Court therefore hereby expressly rejects Defendants' indefiniteness argument. No further construction is necessary in light of the above-discussed accompanying explanatory language recited in the claims. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes “**non-transitory computer readable media . . . comprising: blocking . . .; offloading . . .; monitoring . . .; unblocking . . .; re-blocking . . .**” to have its **plain meaning**.

O. “common channel” and “non-common channel”

“common channel” (Claim 7)	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“data channel shared by multiple applications”	“shared push channel”

“non-common channel” (Claim 7)	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“application-specific data channel to an application server”	“an application-specific push channel”

(ZTE, Dkt. No. 77, at 3; ZTE, Dkt. No. 85, Ex. A, at 4 & 7; ZTE, Dkt. No. 88, at 1; *Google/Samsung*, Dkt. No. 246, Ex. A, at 6 & 7; *Google/Samsung*, Dkt. No. 263, at 15.)²⁴

(1) The Parties’ Positions

Plaintiff argues that “ZTE’s attempt to limit the claims to push channels, one of the several embodiments disclosed by the specification, is improper and should be rejected.” (ZTE, Dkt. No. 77, at 7.) Plaintiff also submits that the word “push” was removed from the claims during prosecution. (*Id.*, at 7–8.) Further, Plaintiff argues claim differentiation as to dependent Claim 8. (*Id.*, at 8.) Finally, Plaintiff argues that, unlike Defendants’ proposed constructions, Plaintiff’s proposals clarify that “multiple applications share the common channel” and that “[a]pplication-specific channels are channels through which applications communicate with the servers that provide their content.” (*Id.*, at 9–10.)

ZTE argues that “non-common channel” “should be construed as it is used consistently in the specification and in the file history – an ‘application specific push channel.’” (ZTE, Dkt. No. 85, Ex. A, at 6.) Further, ZTE argues that “common channel” “should be construed as it is used consistently in the specification and in the file history – a ‘shared push channel.’” (*Id.*)

²⁴ ZTE previously urged that these terms are indefinite. (See ZTE, Dkt. No. 85, Ex. A at 4 & 7). After the close of briefing, but prior to the September 12, 2018 hearing, ZTE withdrew its indefiniteness arguments as to these terms. Instead, ZTE is pursuing what it had previously presented as alternative proposed constructions, which are also proposed by Google and Samsung.

Plaintiff responds that the prosecution history cited by ZTE does not contain any disclaimer that would justify ZTE’s proposal of requiring “push” channels. (ZTE, Dkt. No. 88, at 5–11.)

ZTE responds that “[t]he specification . . . only describes push channels, and a person of ordinary skill in the art would understand the claimed channels to be push channels when read in light of the specification.” (ZTE, Dkt. No. 86, at 7.) Further, ZTE cites its opening brief arguments that the patentee “repeatedly and unambiguously distinguished the invention ‘as claimed’ from the cited prior art (including the Annan reference) based on the presence of a ‘push channel.’” (*Id.*, at 8.) As to claim differentiation, ZTE argues that “because dependent claim 8 adds additional elements other than the two push channels, the two recited channels in independent claim 7 can be limited to push channels without violating the doctrine of claim differentiation.” (*Id.*, at 9.) Finally, ZTE argues that Plaintiff’s proposed constructions “attempt to import extraneous limitations from select embodiments within the specification” (*Id.*, at 10.)

Plaintiff replies that ZTE’s expert has not addressed the analysis of Plaintiff’s expert, in particular as to “why the ’600 Patent’s discussion of polling refers to ‘pull’ channels.” (ZTE, Dkt. No. 148, at 1.) Plaintiff argues that Defendants’ expert “provides no support for his opinion that the ’600 Patent’s reference to ‘polling’ could be for either push or pull channels.” (*Id.*)

Google and Samsung submit that they agree with ZTE’s proposed constructions. (Google/Samsung, Dkt. No. 263, at 15 n.19.) Google and Samsung argue that “[g]iven the specification and prosecution history’s repeated descriptions and the explicit disclaimer in the file history to the same effect, both channels must be ‘push’ channels.” (*Id.*, at 15.)

Plaintiff replies that “[Google and Samsung’s] arguments mirror ZTE’s, and SEVEN stands on its briefing in ZTE.” (Google/Samsung, Dkt. No. 279, at 5.)

(2) Analysis

As a threshold matter, the parties' arguments at the September 12, 2018 hearing confirmed that the parties agree that a "common channel" is a shared channel and a "non-common channel" is an application-specific channel. The specification is consistent with this understanding. *See, e.g.*, '600 Patent at 21:59–63 ("Some applications have their own mechanisms for communicating with the application servers or other third-party servers. For example, these applications can use their own communication channels to periodically poll their application/third-party servers for updates.").

As to whether these channels must be "push" channels, Plaintiff argues claim differentiation as to Claim 8 of the '600 Patent, which depends from Claim 7. Claims 7 and 8 of the '600 Patent recite (emphasis added):

7. Non-transitory computer readable media containing computer code to implement a processor controlled system for reducing network traffic, comprising:

 blocking a first channel such that network signaling and battery consumption are reduced, wherein the first channel includes a *non-common channel*;

 offloading application traffic of an application onto a second channel, wherein the second channel includes a *common channel*;

 monitoring the application traffic of the application over the second channel;

 unblocking the first channel based on the monitored application traffic over the second channel so that the application can perform an action; and

 re-blocking the first channel after the action has been completed.

8. Non-transitory computer readable media containing computer code to implement a processor controlled system for reducing network traffic according to claim 7, wherein the first channel is a first *push* channel and the second channel is a second *push* channel, further including recognizing multiple overlapping *push* channels at an application, wherein recognizing multiple overlapping *push* channels is performed offline.

First, dependent Claim 8 recites more than simply that the "common channel" and "non-common channel" are "push" channels. In light of the recital of other additional limitations in this

claim, the doctrine of claim differentiation is of limited weight in the analysis of these disputed terms. *See Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001) (“Claim differentiation, while often argued to be controlling when it does not apply, is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, *and that limitation is the only meaningful difference between the two claims.*”) (emphasis added).

Second, even if the doctrine of claim differentiation were found to be probative here, the Federal Circuit has noted that “[a]lthough claim differentiation is a useful analytic tool, it cannot enlarge the meaning of a claim beyond that which is supported by the patent documents, or relieve any claim of limitations imposed by the prosecution history.” *Fenner Invs., Ltd. v. Cellco P’ship*, 778 F.3d 1320, 1323 (Fed. Cir. 2015).

Turning to the specification, Plaintiff cites what it characterizes as disclosure of three types of communication: “push,” “polling” (which Plaintiff characterizes as “pull”), and “hybrid push.” *See* ’600 Patent at 11:53–57 (“polling patterns”), 20:51–54 (“poll over the network to satisfy application data requests”), 21:7–33 (“polling of content from a content source”), 22:2–7 (“hybrid push or other communication channels”) & 24:56–59 (“align polling requests occurring close in time”). These disclosures appear to contradict Defendants’ assertions that the specification discloses only “push” channels, particularly in light of the opinion of Plaintiff’s expert that “polling” is typically used with “pull” channels. (*See ZTE*, Dkt. No. 78, Ex. I, Feb. 13, 2017 Goodrich Decl. at ¶¶ 19–21.)

Further, to whatever extent the disclosed embodiments are limited to “push” channels, the use of “push” channels is a specific feature of particular embodiments that should not be imported

into the claims. *See Phillips*, 415 F.3d at 1323. The *Secure Web* case cited by ZTE is unpersuasive because the specification does not “tout[] [‘push’ channels] as an advantage.”²⁵

However, Defendants also argue that the patentee’s statements during prosecution warrant limiting these “channel” terms to being “push” channels. During prosecution of the ’600 Patent, the independent claims originally recited “push” channels. (*See ZTE*, Dkt. No. 89, Ex. P, Sept. 2, 2014 Application, at 43–45 (P. Resp. App. 13–15).) In an amendment prior to any rejection, the patentee removed the word “push” from application claims 1 and 7. (*See ZTE*, Dkt. No. 78, Ex. F, June 22, 2015 Amendments to the Claims, at 2–4 (P. App. 138–40).) The examiner subsequently rejected the claims based on United States Patent Application Publication No. 2014/036,697 (“Annan”) and other references. (*See ZTE*, Dkt. No. 89, Ex. Q, Nov. 5, 2015 Office Action, at 3–4 (P. Resp. App. 22–23).) In response to the rejection, the patentee stated as follows in conjunction with amending the independent claims to include “wherein the first channel includes a non-common channel” and “wherein the second channel includes a common channel”:

For example, the disclosed i[n]vention provides for offloading or redirecting application traffic from the application-specific channel to a shared channel, such as the Google Cloud Messaging (GCM) channel, which can optimize signaling in the wireless network for traffic utilizing various proprietary and non-proprietary protocols. . . . Monitoring the application traffic over the second channel and unblocking the first channel based on the monitored application traffic may include receiving a *push* message from an additional *push* channel (i.e., second channel) and unblocking the blocked *push* channel (i.e., first channel) so that the application can perform an action in response to the message from the additional *push* channel. This may include re-blocking the unblocked *push* channel after the action has completed, such as denying blocking of the *push* channel until a radio of the mobile

²⁵ *See Secure Web Conference Corp. v. Microsoft Corp.*, 640 F. App’x 910, 914 (Fed. Cir. Feb. 17, 2016) (emphasis added):

All descriptions of the security device in the intrinsic record are limited to a stand-alone device. Nothing in the intrinsic record suggests that the patentee intended a broader notion of a security device. Significantly, at no point does the specification contemplate a security device embedded within a microprocessor-based device. To the contrary, *the specification touts the separate and stand-alone nature of the security device as an advantage*.

device is powered on. Thus, the method includes blocking a non-common *push* channel to offload the communication onto a common *push* channel. . . .

The cited references, separately or in combination, fail to teach or suggest (1) *offloading application traffic from a non-common push channel to a common push channel* and (2) unblocking the first channel bas [sic] so that the application can perform an action and reblocking the first channel after the action has been completed, as claimed. * * *

Most of the steps described in Annan are performed before the first blocking step recited in claim 1. This includes Annan's gathering reports from mobile phones about application usage and determining whether to block an application's communications. Nowhere, however, does Annan teach or suggest performing additional, subsequent determinations about whether to un-block and re-block a first channel based on monitored communications of a second channel in order for the application to complete an action. Similarly, *nowhere does Annan teach or suggest that the first channel is a non-common push channel and the second channel (to which the first channel is offloaded) is a common push channel, as claimed.* * * *

In contrast to Annan, the claims recite offloading application traffic to a common (i.e., shared) communication channel for signaling optimization in a wireless network for traffic utilizing both proprietary and non-proprietary protocols. For this reason, it is respectfully submitted that independent claims 1, 7, and 13 are patentable over Annan.

The remaining references fail to overcome the shortcomings of Annan. *Nowhere do the cited references teach or suggest offloading application traffic from a non-common push channel to a common push channel* or unblocking the first channel bas [sic] so that the application can perform an action and re-blocking the first channel after the action has been completed, as claimed. *Claims 2–6, 8–12, and 14–18 depend from independent claims 1, 7, and 13 and are allowable for the same reasons.*

(ZTE, Dkt. No. 80, Ex. G, Feb. 5, 2016 Amendment and Response to Non-Final Office Action, at 7–10 (emphasis added).) The examiner then issued a Notice of Allowance on March 3, 2016, without any further comment.

Thus, in this above-reproduced portion of the prosecution history, the patentee definitively stated that the cited prior art did not teach or suggest offloading application traffic from a non-common “push” channel to a common “push” channel. These statements should be given effect

in the Court’s construction even though the patentee may have also distinguished the prior art on other grounds. *See Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1374 (Fed. Cir. 2007) (“an applicant’s argument that a prior art reference is distinguishable on a particular ground can serve as a disclaimer of claim scope even if the applicant distinguishes the reference on other grounds as well”).

Plaintiff suggests that these references to “push” channels refer to the recitals of “push” channels in other claims. Plaintiff also argues that the statements at issue pertained only to application claim 1 and, as a result, any purported disclaimer should be limited to that claim. Plaintiff’s arguments are unavailing because the above-reproduced statements explicitly refer to all of the claims, not just application claim 1.

Plaintiff further submits that whereas the application claims originally recited “push” channels, the patentee amended the claim at issue so as to remove the word “push” (and amended certain dependent claims so as to include the word “push”). (*See ZTE*, Dkt. No. 89, Ex. P, Sept. 2, 2014 Application, at 43–45 (P. Resp. App. 13–15); *see also ZTE*, Dkt. No. 78, Ex. F, June 22, 2015 Amendments to the Claims, at 2–5 (P. App. 138–41).) Plaintiff has cited authority that limitations removed during prosecution should not be reintroduced through claim construction. *See Laryngeal Mask Co. Ltd. v. Ambu*, 618 F.3d 1367, 1373 (Fed. Cir. 2010) (“[I]nsistence upon this court’s reading back into the claims limitations which were originally there and were removed during prosecution of the application through the Patent Office cannot be permitted.”) (quoting *Kistler Instrumente AG v. U.S.*, 628 F.2d 1303, 1308 (Ct. Cl. 1980) (alteration omitted)).

The *Laryngeal Mask* case is distinguishable because here the patentee made the above-reproduced statements in the prosecution history *after* removing the word “push.” The patentee

explicitly referred to—and thus relied upon—the common and non-common channels being push channels.

Finally, Plaintiff urges that “the presence or absence of push channels in Annan had nothing to do with the examiner’s rejection.” (*ZTE*, Dkt. No. 88, at 8 (citing Dkt. No. 89, Ex. Q, Nov. 5, 2015 Office Action, at 3 (P. Resp. App. 31))). In particular, Plaintiff argues that because the examiner had stated that Annan disclosed push channels, the patentee could not have distinguished Annan based on the claimed invention using push channels. (*See ZTE*, Dkt. No. 89, Ex. Q, Nov. 5, 2015 Office Action, at 4–7 (P. Resp. App. 23–26)). Plaintiff notes that dependent claims, such as application claims 2 and 8, recited that “the first channel is a first push channel and the second channel is a second push channel.” (*ZTE*, Dkt. No. 80, Ex. G, Feb. 5, 2016 Amendment and Response to Non-Final Office Action, at 2–3.).

Yet, even assuming that Plaintiff is correct, “the scope of surrender is not limited to what is absolutely necessary to avoid a prior art reference,” and “[t]he question is what a person of ordinary skill would understand the patentee to have disclaimed during prosecution, not what a person of ordinary skill would think the patentee needed to disclaim during prosecution.” *Tech. Props. Ltd. LLC v. Huawei Techs. Co.*, 849 F.3d 1349, 1359 (Fed. Cir. 2017). Thus, even if the patentee’s above-reproduced statements regarding “push” channels were unnecessary or were made in error, the patentee should be bound by these statements so as to “protect[] the public’s reliance on definitive statements made during prosecution.” *Omega Eng’g*, 334 F.3d at 1324; *see Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003).

For the foregoing reasons, the Court finds that the prosecution history contains a disclaimer that limits the “common channel” and “non-common channel” to being “push” channels, and

Plaintiff's above-discussed claim differentiation argument is unavailing. *See Omega Eng'g*, 334 F.3d at 1324; *see also Fenner*, 778 F.3d at 1323.

Therefore, the Court hereby construes these disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“common channel”	“shared push channel”
“non-common channel”	“application-specific push channel”

P. “monitoring the application traffic of the application”

Plaintiff's Proposed Construction	Google's Proposed Construction²⁶
No construction necessary. This phrase is clear and unambiguous, and all of the terms in it are being used consistent with their plain and ordinary meanings.	“monitoring the offloaded traffic generated by the application”

(*Google/Samsung*, Dkt. No. 172, at 5; *Google/Samsung*, Dkt. No. 191, at 24; *Google/Samsung*, Dkt. No. 246, Ex. A, at 8; *Google/Samsung*, Dkt. No. 263, at 30.) The parties submit that this term appears in Claim 7. (*Google/Samsung*, Dkt. No. 172, at 5; *Google/Samsung*, Dkt. No. 246, Ex. A, at 8.)

(1) The Parties' Positions

Google argues that its proposal “clarifies that ‘the application traffic’ in the phrase ‘monitoring the application traffic of the application’ refers back to the only antecedent found in claim 7.” (*Google/Samsung*, Dkt. No. 263, at 30.)

²⁶ This proposal is listed as “Google's” rather than “Defendants” because arguments as to this term appear in Google's Amended Responsive Claim Construction Brief and not in the original Responsive Claim Construction Brief. (*See Google/Samsung*, Dkt. Nos. 208 & 263.)

Plaintiff replies that whereas Google’s proposal “would exclude monitoring traffic sent to the application by the remote server communicating with the application,” “the specification describes embodiments of the invention in which applications receive push notifications from remote servers.” (*Google/Samsung*, Dkt. No. 279, at 10 (citing ’600 Patent at 21:63–22:2).)

(2) Analysis

Claim 7 of the ’600 Patent recites (emphasis added):

7. Non-transitory computer readable media containing computer code to implement a processor controlled system for reducing network traffic, comprising:
 - blocking a first channel such that network signaling and battery consumption are reduced, wherein the first channel includes a non-common channel;
 - offloading *application traffic* of *an application* onto *a second channel*, wherein the second channel includes a common channel;
 - monitoring *the application traffic* of *the application* over *the second channel*;
 - unblocking the first channel based on the monitored application traffic over the second channel so that the application can perform an action; and
 - re-blocking the first channel after the action has been completed.

The use of the definite article, “the,” in the recital of “the application traffic” refers to the same “application traffic” recited in the preceding limitation of “offloading application traffic of an application.” *See In re Varma*, 816 F.3d 1352, 1363 (Fed. Cir. 2016) (“For a dog owner to have ‘a dog that rolls over and fetches sticks,’ it does not suffice that he have two dogs, each able to perform just one of the tasks.”); *see also Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1342 (Fed. Cir. 2016) (regarding “a logical table,” finding that the limitations at issue were required to be “in the same logical table”). This understanding is further reinforced by the subsequent recital of “unblocking the first channel based on *the monitored application traffic* over the second channel.”

At the September 12, 2018 hearing, Defendants urged that the recital of “*application traffic of the application*” requires that the traffic is generated by the application. Plaintiff persuasively

countered that nothing in the claim language precludes this traffic from being “of the application” in the sense that the traffic is being sent *to* the application. That is, Defendants have not shown how the word “application” necessarily limits the direction of traffic to being from application to server rather than from server to application.

With that understanding, the Court hereby finds, as to the term **“monitoring the application traffic of the application,”** that the antecedent basis for **“the application traffic of the application”** is **“application traffic of an application”** as recited in the limitation of **“offloading application traffic of an application onto a second channel, wherein the second channel includes a common channel.”**

IX. DISPUTED TERMS IN UNITED STATES PATENT NO. 9,553,816

The ’816 Patent, titled “Optimizing Mobile Network Traffic Coordination Across Multiple Applications Running on a Mobile Device,” issued on January 24, 2017, and bears an earliest priority date of July 26, 2010. Plaintiff submits that “[t]he ’816 Patent claims a mobile device that conserves battery power by, among other things, blocking outgoing network traffic from an application when the application is inactive and the device is not plugged into an external power source.” (*Google/Samsung*, Dkt. No. 191, at 15.) The Abstract of the ’816 Patent states:

A system with distributed proxy for reducing traffic in a wireless network to satisfy data requests made by a mobile application is provided. The system includes a mobile device having a local proxy for intercepting a data request made by the mobile application. The local proxy simulates application server responses for the mobile application on the mobile device for data requests where responses are available in the local cache. A proxy server is coupled to the mobile device and an application server to which the data request is made. The proxy server is able to communicate with the local proxy. The local proxy forwards the data request to the proxy server for transmission to the application server for a response to the data request. The proxy server queries the application server independent of activities of the mobile application for any changes to the data request.

Q. “first application is inactive,” “determining whether the first application is inactive based on the time the first application was last accessed,” and “an application . . . is inactive”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
These phrases are clear and unambiguous, they are not indefinite, and they are used consistent with their plain and ordinary meanings.	Indefinite

(*Google/Samsung*, Dkt. No. 191, at 15; *Google/Samsung*, Dkt. No. 246, Ex. A, at 26, 28 & 29; *Google/Samsung*, Dkt. No. 263, at 17.) The parties submit that these terms appear in Claims 9 and 13. (*Google/Samsung*, Dkt. No. 172, at 10–11; *Google/Samsung*, Dkt. No. 246, Ex. A, at 26, 28 & 29.)

Prior to the September 12, 2018 hearing, Plaintiff’s counsel informed the Court by e-mail that the parties have agreed that these terms should be given their plain meaning. In accordance with this agreement reached by the parties, the Court hereby construes **“first application is inactive,” “determining whether the first application is inactive based on the time the first application was last accessed,” and “an application . . . is inactive”** to have their **plain meaning**.

R. “blocking”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. The term “blocking” is used consistent with its plain and ordinary meaning.	“intercepting”

(*Google/Samsung*, Dkt. No. 191, at 16; *Google/Samsung*, Dkt. No. 246, Ex. A, at 29; *Google/Samsung*, Dkt. No. 263, at 9.) The parties submit that this term appears in Claims 9 and 11. (*Google/Samsung*, Dkt. No. 172, at 11; *Google/Samsung*, Dkt. No. 246, Ex. A, at 29.)

(1) The Parties' Positions

Plaintiff argues that here as in the '129 Patent (addressed above), “no construction is necessary because the patentee did not redefine ‘blocking,’ which is a common, easily understood term.” (*Google/Samsung*, Dkt. No. 191, at 16–17.)

Google and Samsung argue this term together with the term “block” in the '129 Patent, addressed above. (*Google/Samsung*, Dkt. No. 263, at 9–10.)

Plaintiff replies as to this term together with the term “block” in the '129 Patent, addressed above. (*Google/Samsung*, Dkt. No. 279, at 3–4.)

(2) Analysis

This disputed term presents substantially the same dispute as the term “block” in the '129 Patent, and the Court reaches the same conclusion here for substantially the same reasons. *See* '816 Patent at 18:38–42, 22:4–11, 22:21–36, 29:39–50, 34:53–68, 35:12–23, 41:30–35, Fig. 7B & Fig. 9B.

The Court therefore hereby construes “**blocking**” to mean “**preventing**.”

X. DISPUTED TERMS IN UNITED STATES PATENT NO. 8,811,952

The '952 Patent, titled “Mobile Device Power Management in Data Synchronization Over a Mobile Network With or Without a Trigger Notification,” issued on August 19, 2014, and bears an earliest priority date of January 8, 2002. Plaintiff submits that “[t]he '952 Patent claims mobile devices that conserve battery power by reducing the frequency at which applications communicate with remote servers.” (*Google/Samsung*, Dkt. No. 191, at 17.) The Abstract of the '952 Patent states:

A real-time communication architecture establishes a continuous connection between an enterprise network and a communication management system. The connection is continuously held open allowing mobile devices real-time access to enterprise email systems. The real-time communication architecture can support

an entire enterprise email system or individual email users. The foregoing and other objects, features and advantages of the invention will become more readily apparent from the following detailed description of a preferred embodiment of the invention which proceeds with reference to the accompanying drawings.

S. “periodicity” and “the periodicity of the synchronization requests occur at a frequency according to remaining battery power on the mobile device”

“periodicity” (Claim 26)	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. The term “periodicity” is used consistent with its plain and ordinary meaning (i.e., “recurrence”).	“recurrence at approximately regular intervals”
“the periodicity of the synchronization requests occur at a frequency according to remaining battery power on the mobile device” (Claim 26)	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. The term “the periodicity of the synchronization requests occur at a frequency determined according to remaining battery power” is used consistent with its plain and ordinary meaning, in light of SEVEN’s construction for “periodicity” above.	“the recurrence at approximately regular intervals of the synchronization requests occur at a frequency that the mobile device determines according to its remaining battery power”

(*Google/Samsung*, Dkt. No. 191, at 17–18; *Google/Samsung*, Dkt. No. 246, Ex. A, at 1–2;

Google/Samsung, Dkt. No. 263, at 18–19.)

Prior to the September 12, 2018 hearing, Plaintiff’s counsel informed the Court by e-mail that the parties have agreed that the larger term should be construed to mean “the recurrence of the synchronization requests occur at approximately regular intervals and at a frequency determined

according to remaining battery power on the mobile device.” Plaintiff’s counsel also stated that the parties have agreed that the term “periodicity” need not be separately construed.

In accordance with this agreement reached by the parties, the Court hereby construes these terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“periodicity”	Plain meaning apart from the Court’s construction of “the periodicity of the synchronization requests occur at a frequency according to remaining battery power on the mobile device”
“the periodicity of the synchronization requests occur at a frequency according to remaining battery power on the mobile device”	“the recurrence of the synchronization requests occur at approximately regular intervals and at a frequency determined according to remaining battery power on the mobile device”

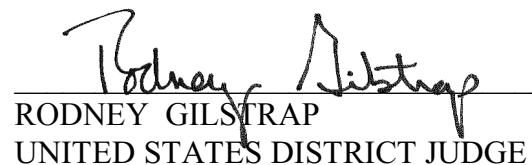
XI. CONCLUSION

The Court **ORDERS AND ADOPTS** the constructions set forth in this opinion for the disputed terms of the patents-in-suit, and in reaching conclusions the Court has considered extrinsic evidence. The Court’s constructions thus include subsidiary findings of fact based upon the extrinsic evidence presented by the parties in these claim construction proceedings. *See Teva*, 135 S. Ct. at 841.

The parties are **ORDERED** that they may not refer, directly or indirectly, to each other’s claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

Within thirty (30) days of the issuance of this Memorandum Opinion and Order, the parties are hereby **ORDERED**, in good faith, to mediate this case with the mediator agreed upon by the parties. As a part of such mediation, each party shall appear by counsel (with lead and local counsel present and participating) and by at least one corporate officer possessing sufficient authority and control to unilaterally make binding decisions for the corporation adequate to address any good faith offer or counteroffer of settlement that might arise during such mediation. Failure to do so shall be deemed by the Court as a failure to mediate in good faith and may subject that party to such sanctions as the Court deems appropriate. No participant shall leave the mediation without the approval of the mediator.

So ORDERED and SIGNED this 23rd day of October, 2018.



RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE